

RICE UNIVERSITY

**EXTREME ARCHITECTURE:
BUILDING IN THE CONTEMPORARY CITY**

BY

GARY MACHICEK

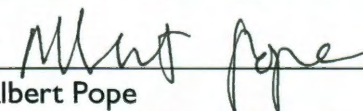
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abstract

The contemporary city has evolved into an agglomeration of shopping malls, convenience stores, corporate offices, and single family houses that are linked by an intensive highway infrastructure and, as Andrew Kruse referred to it, “thininfrastructure” of fiber optic cables and satellites. This agglomeration, dubbed the “Generic City” by Koolhaas, is an organism dominated by “... motion, time, and event” where process is more important than place.

Architecture within the contemporary city has been reduced to a mere resultant of the economic forces that shape the city- a mere spectator within the dynamic matrix of the contemporary city. For architecture to regain any respect, it must shed this spectator mentality and become an active and aggressive force within the city.

The intent of this thesis is to, through the study of Extreme Sports and several architectural precedents, to develop a methodology for the creation of an “Extremist Architecture” within the contemporary city. This architecture, much like the participants in extreme sports, will be obsessed with “discovering new potentials in existing conditions” by going beyond the

norm and pushing the edge of the envelope. The vehicle for the development of this architecture will be the design of a downtown "superstop" for the city of Houston. The design focuses on three major issues. First, the concept of the void and its inverse within the city. Second, reevaluating the role of the curtain wall within the city. The curtain wall is no longer seen as a strict political line at the perimeter of the building but instead one inhabits it. The curtain wall in essence delaminates and becomes the building. Third, program is seen not as a static element but as a fluid element that continuously reconfigures itself through the passage of time. This method of understanding program was a way of fully incorporating the initial analysis of Extreme Sports.

introduction

According to Debord, society has become about the spectacle. According to this concept of the spectacle, everything has been reduced to mere illusions and representations of the actual all of which are treated as a commodity. As a result, the world has produced "... not actors but spectators: modern men and women, who are thrilled to watch whatever it is they are given to watch" (Marcus, p.99). Urban architecture has followed down the same street as the modern man by becoming a mere after thought in the social, political, and economic structure of the world. No longer about the construction of urban form, architecture has been reduced to being the "... outcome of the dynamics of force fields in perpetual motion" (Koolhaas, atlanta, p.847). Henri Lefebvre, the French urbanist, reinforces this idea commenting that architecture is only the immobilization of the capital that is continuously in circulation through the metropolis (Feagin, p.29). To compound this problem, the focus of society has shifted from the built realm, the infrastructure, to what Andrew Kruse referred to as "thinfracture- that is the extreme network of wires and satellites that have linked the world into a gigantic computer network.

For architecture to survive as a profession that can actually affect the metropolis and the world, it must shed itself of the spectator mentality and become an active and aggressive force within the city and the world. This does not mean trying to turn the metropolis of the twenty first century into some version of a classical city or a utopian city. To the contrary, architecture must submerge itself into the economic, cultural, and physical flows that shape the contemporary city and the contemporary world. Through this process of submersion, architects can begin to understand these dynamic forces that shape the world and then react to them because "...the only plausible strategy [left] is to attempt to harness the dynamics of development to move things in the direction that you want" (Sudjic, p.309).

The intent of this thesis is to, through the study of Extreme Sports and several architectural precedents, to develop a methodology for the creation of an "Extremist Architecture" within the contemporary city. This architecture, much like the participants in Extreme Sports, will be obsessed with "discovering new potentials in existing conditions" (Kwinter, p.72) by going beyond the norm and pushing the

edge of the envelope. The vehicle for the development of this architecture will be the design of a downtown “superstop” for the City of Houston.

the city

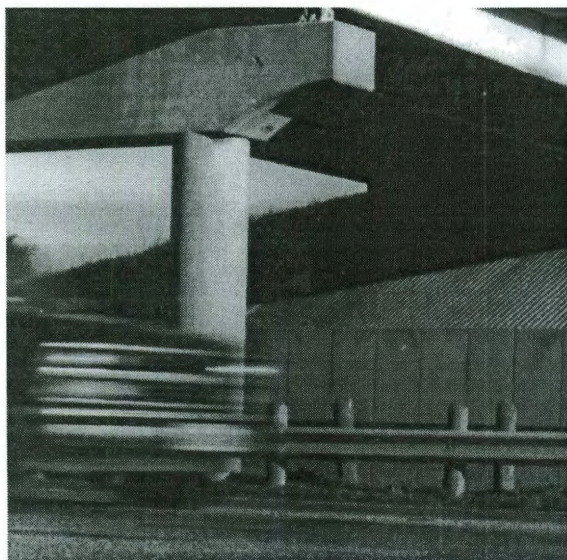


"Where space was once Kantian [embodying] the possibility of separation, it now becomes the fabric which connects all into a whole. Nothing on the plane is stationary, everything is a fluid, even the ground ball itself on which the billiard balls careen. The bio-vehicular, electro-commercial, socio-electronic, and opto-ocular metropolis knows no steady state. In a city predominately constituted of motion and temporalities, space itself is about deformation and velocity - constantly being carved out in front of one and abandoned behind..." (Lerup, p.86)

The world is continually evolving as new technologies are created daily. These technological advancements have changed every aspect of society, including the modern city. The first major advancement in postwar America to transform the urban landscape was the development of the Interstate Highway System during the 1940's. With a brand new highway infrastructure system to link the entire country, Americans developed a love for the car (and the speed that it allowed) that they would never lose. Today, the focus of society has shifted from infrastructure to what Andrew Kruse referred to as the "thininfrastructure" - that is the extreme network of wires and satellites that have linked the world into a giant computer network. The term of the day is globalism because as a result of this "thininfrastructure" one can access information instantly via the Internet, ship packages around the world within

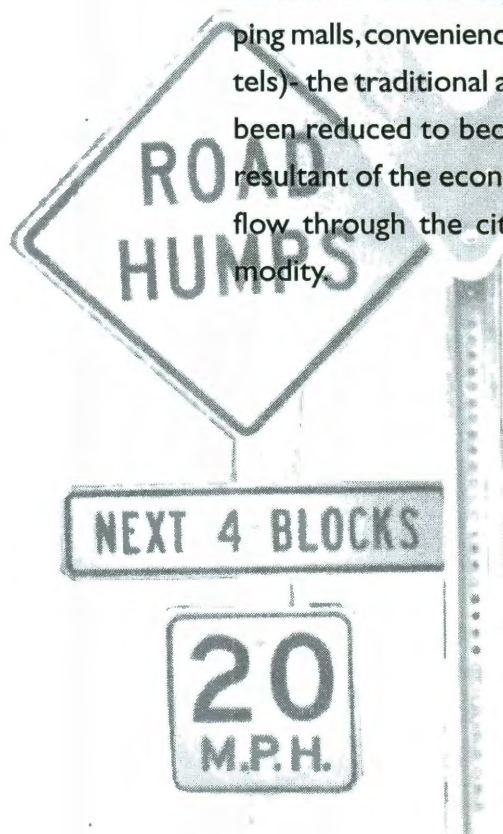
twenty-four hours, and watch 100 different channels instantly on the television. The con-

temporary city has been transformed by these new technologies and as a result has evolved into an agglomera-



tion of shopping malls, convenience stores, corporate offices, and single family houses that are linked by an intensive highway infrastructure and the "thininfrastructure".

This agglomeration, dubbed the "Generic City" by Koolhaas, is an organism dominated by "... motion, time, and event" (Lerup, p.93) where process is more important than place. No longer about place, the infrastructure, which was designed to improve "... the flow of information, money, people, materials, and energy" (Gamard, p.28), is the only coherent and understandable context that is visible in the contemporary city (Koolhaas, p.835). The remainder of the city (i.e. the shopping malls, convenience stores, and hotels) - the traditional architecture - has been reduced to becoming the mere resultant of the economic forces that flow through the city, a mere commodity.



extreme sports

(ESPN, Sportszone)

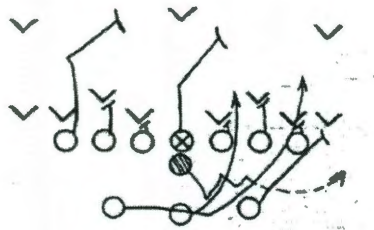


"Ex-Treme adj.- extending far beyond the norm...The wind, sea, sky, earth, and athletes from around the world came together to form a new arena of sports competition in which speed is a state of mind, risk is a guarantee and the laws of gravity are rewritten." — ESPN

Currently, there are a group of sporting activities gaining popularity throughout the world. Known as Extreme Sports, these alternative sports are obsessed with the extreme or in a different term pushing the edge of the envelope. This concept, which helps to set these sports apart from other normal sports, reflects the athlete's obsession with not being satisfied with the norm but to, in the immortal Star Trek quote, "go where no man has gone before." In order to achieve this, athletes must attempt to "...inhabit a performance destination..." know as the edge of the envelope. This edge condition "...is in fact a communicative interface where rational information processing (i.e. planning) breaks down under the weight of too many and too quickly shifting variables, where it then gives way to spontaneous material intelligences (intuition and universal computation) to the archaic way of proceeding by feel and flow and by fol-

lowing the grain of the world — unfolding — to the process of

becoming material oneself" (Kwinter, p.72). Some of the most popular extreme sports are skysurfing, in-line skating, wind surfing, street luge, and bungee jumping.



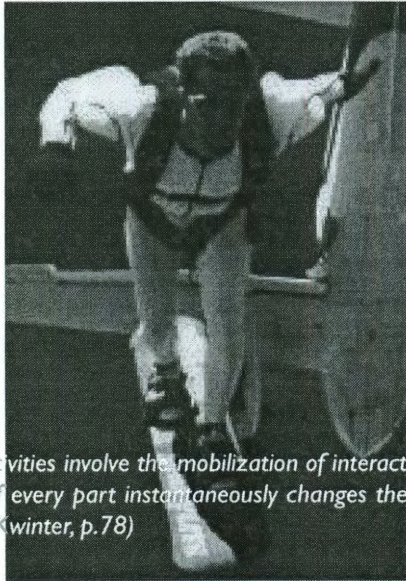
Since their major international debut in 1995 at the inaugural Extreme Games sponsored by ESPN in Rhode Island, society seems obsessed with the concept of the extreme that is exhibited by these alternative sports. In today's commodity driven society, one cannot turn on the TV without seeing a reference to the spectacle of the extreme sports during one of the many commercials. Taco Bell seems convinced that seeing a group of in-line skaters jump a canyon will convince me to buy more 59 cent tacos.

The intent of this study of Extreme Sports is to gain an understanding of how one moves through the contemporary city. Understanding one's movement through the city is a necessity because prior to designing an active and aggressive architecture, one must first gain an understanding of the operational processes of the contemporary city.

The study focuses on five characteristics of the sports: the relationship between participant and site, spontaneity / chance, time, movement / flux, and the notion of the event.

In traditional sports (i.e. football and baseball), the activity takes place on highly regularized, striated fields and

(Koyu, internet)



"Extreme activities involve the mobilization of interacting parts in a field, so that every movement of every part instantaneously changes the conditions of the unfolding of the whole." (Kwinter, p.78)

the athletes must follow a stringent set of guidelines and predetermined plays. Understanding a specific site in traditional sports is not that important because the exact same football game can occur in either Houston or Detroit without the athletes knowing anything particular about either Houston or Detroit. However the intent of extreme sports is to react directly to the forces that are inherent in the "site" (it should be understood that the term "site" is not used here in the traditional sense of only one's immediate surrounding but in-

stead it refers to both local and global conditions) itself and to work with and manipulate them to a specific goal. The participant is obsessed with exploiting the potential that is embedded or to find new potential in the existing physics of the site. As a result, an intense network develops between the participant and the fluctuating site forcing the participant to resort to the "archaic way of proceeding by feel and flow and by following the grain of the world" (Kwinter, p.72).

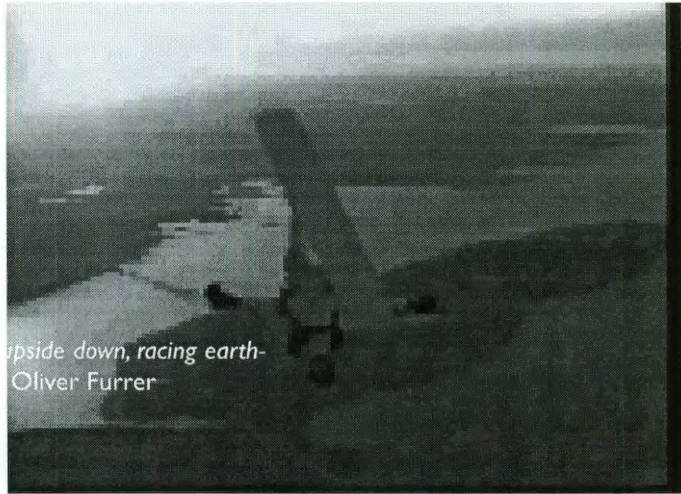
This notion of "proceeding by feel and flow" leads into another interesting facet of extreme sports: the role of spontaneity / chance within the event.

Most traditional sports have a rigid framework or game plan within which the sport occurs. However, within extreme sports, a participant starts with a loose structure or framework of what they want to do and then he/she makes decisions as the sport evolves based upon existing conditions. Because spontaneity plays such a big role in extreme sports, the participant basically reinvents the sport each time he / she participates in the sport.

Because extreme sports participants are obsessed with speed, the notion of time becomes an integral part of the event. Time is not a fixed entity but one that is continually manipulated through the ability of the participants to speed it up or slow it down. Time becomes a material entity that has to be manipulated much like the site or the participant's equipment.

The last area of interest is the dynamic quality of the sports. These sports "... involve the mobilization of every interacting part in a field" with the result being an extremely dynamic network of interrelated forces where the "... movement of every part instantaneously changes the conditions of the unfolding of the whole" (Kwinter, p.78). In different terms. These sports

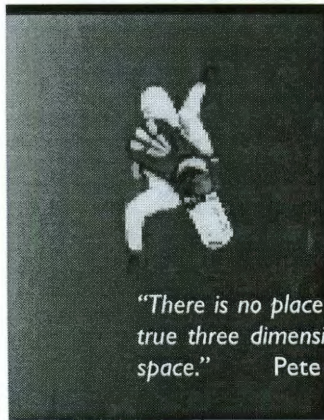
"So when I am performing a helicopter, [I am] upside down, racing earthward at 120 mph and spinning in tight circles." Oliver Furrer



are not stable but instead they are always in a process of becoming material through the unfolding of a series of events. They are not about fixed entities but instead about relationships. This becomes readily apparent when one analyses the jargon that has evolved with the sport. For example, when wind surfers refer to a table top or to a hill, they are referring not to a physical entity but instead to specific relationships between the body, wind, and the water currents.

Skysurfing

Historically, the sport of skysurfing has its roots in the more striated sport of skydiving. The first know experiment into what would be later referred to as skysurfing occurred fifteen years ago when a group of skydivers in Southern California ex-



"There is no place else where performers can play in true three dimensional environment ... except maybe space." Pete McKeeman

perimented with Styrofoam boogie boards during freefall. This first group of skysurfers would lay flat on the board and grip the side rails as they plunged toward the Earth (Sportszone, ESPN). The next major break through occurred in 1987 when Joel Cruciana became the first person to stand on a board in a traditional surfing position during freefall (Sportszone, ESPN). The sport received national attention in 1991 when it was the subject of a "Life is Short, Play Hard" Reebok commercial.

As noted by McKeeman, skysurfing is probably the only sport where participants can play in a "...true three dimensional environment..." where all of the dimensions are continuously in flux (Actually, it is really a fluctuating four dimensional environment because the fourth dimension- time is also continually fluctuating based on the speed of movement of the participant). The sport consists basically of jumping out of an airplane at 10,000 feet with a surf board strapped to your feet and then surfing through the sky performing a variety of dynamic moves. With all dimensions in flux, the participant is continually in the process of understanding and then reacting to the force-lines inherent to



the “site” or in other words “... proceeding by feel and flow” (Kwinter, p.72). The dominant force-lines inherent to the sky that participants manipulate are gravity and the dominant air currents. The following is an excerpt from an article on the aerodynamics of skysurfing that begins to illustrate the importance of the ability to manipulate the force-lines inherent to the site:

“When the body is inverted, both the body and the sky board catches the relative wind. The asymmetrical foot position causes a spinning action, often referred to as a helicopter spin. While standing on the board, the board catches most of the relative wind...To bring the sky board under you from the inverted orientation, your goal is to knife the edge of the sky board into the wind. The sky board presents much less drag when its edge is presented into the wind flow” (koyn, internet)

The sport is always in the process of becoming material through the se-

ries of moves (i.e. translations and rotations) the participant performs. This holds true during a competition where participants are judged on their ability to perform a series of moves during an allotted time which is different from other sports like football or baseball where the only thing that is important is the final result. A move in the world of skysurfing is described as either “... a translation of the performer’s body and/or as a rotation around one or more of the three axes of the performer’s body and a fourth axis that is the direction of the fall.”

The four axes include:

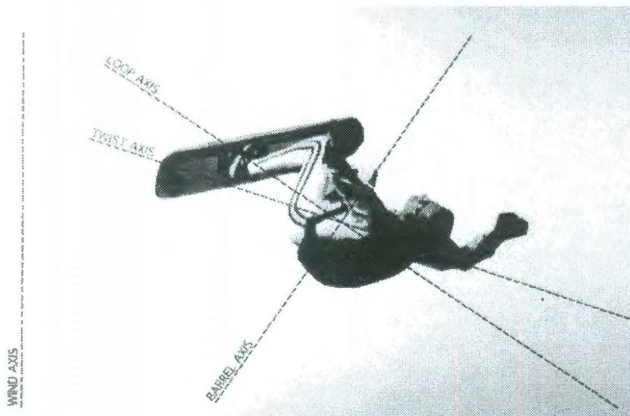
- Loop axis: an axis through the performers body from left to right. Movements about this axis are forward or back loops.*
- Barrel axis: an axis through the performer's body from front to back. Movements about this axis are side loops or barrel rolls.*
- Twist axis: a longitudinal axis through the performer's body from head to toe. Movements about this axis are twists or spins.*
- Wind axis: is an axis along the direction of the relative wind or fall. This axis may coincide with any of the three body axes." (Koyn, Internet)*

As a side note, as the sport of skysurfing developed, it generated a culture that grew with the sport. As part of this culture, a certain lingo has developed among the participants. The following list is an example of some of the lingo used in skysurfing that was compiled by Dina Hernandez on the Internet:

Burble- Rough air or vacuum just above a body in freefall. (Most skysurfers do not wear head gear in order to "hear" when they are in the burble of the board.)

Dialed in- To be in sync with a team mate or to know the performance parameters of your equipment.

Fall rate- While in freefall, the relative descent rate of one



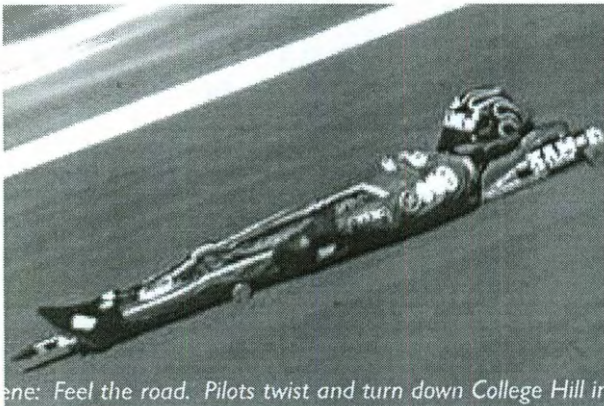
individual's terminal velocity to others.

Flail- To appear to be or to actually be out of control during freefall.

Float/Sink- To rise or fall away vertically in relation to another person in freefall.

Funnel- A situation that occurs when one person steals the air out from another, causing both to descend faster.

Terminal Velocity- The rate of descent at which a given body position will descend no faster. (A belly-to-earth posture has a terminal velocity of about 120 mph. A feet-first or head-first posture has a fall rate of 160-180 mph.



"Scene: Feel the road. Pilots twist and turn down College Hill in two and four-man heats at speeds of 55-60 mph on an eight foot board just inches off of the ground" (X Games, ESPN)

Street Luge

Most people agree that the sport of street luge has its early roots in the sport of skateboarding. Commonly referred to as "butt-boarding," early experiments into the sport of street luge occurred when participants would sit on skateboards and roll down hills (Sportszone, ESPN). Even though these early experiments usually resulted in broken bones, the sport con-

"A sport which is fueled by gravity, steering by body weight only, and driven by the need for racing excitement or speed" (Doctor's Assoc. Inc., Internet)



"You're snaking down a hill at an average speed of fifty mph, just inches away from rock-pavement, using only slight shifts of your weight to turn and your feet to stop" (Doctor's Assoc. Inc., Internet)

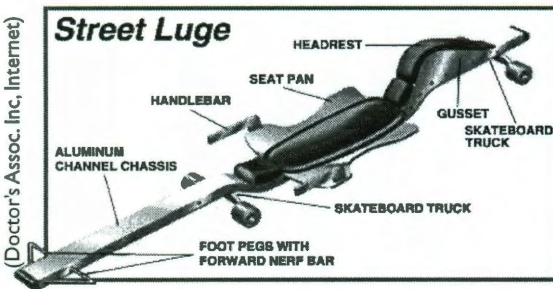
tinued to develop an underground following (Sportszone, ESPN). Bob Pererya, "widely considered the godfather of luge", was the first to de-

velop equipment specifically

for the sport of street luge when he constructed a "...chassis out of channel aluminum, and crafted it to fit [his] body" (Sportszone, ESPN). Every luge pilot still uses some version of the early basic design that was created by Pererya. Like the other extreme sports, street luge has the media to thank for its breaking out of the underground and into the mainstream. The first break occurred in 1984 when a television station did a special on the sport. This exposure generated interest in the sport but the major break occurred in the mid 90's when street luge was the focus of a Mountain Dew commercial (Sportszone, ESPN). This generated national exposure and the sport was well on its way to achieving national acceptance.

The popularity of the sport at the Extreme Games of 1995, sponsored by ESPN, proves without a doubt that street luge is here to stay.

The sport of street luge is about speed. Quite simply, the person that



"A street luge is usually about 8' long, 16" wide, 14" high, and weighs 25 - 30 pounds. The body of the sled is made of 3" wide U - shaped aluminum channel. Attached to the body are skateboard trucks, with wheels (the bigger the better), a headrest, foot pegs, and a seat pan." (Doctor's Assoc. Inc, Internet)



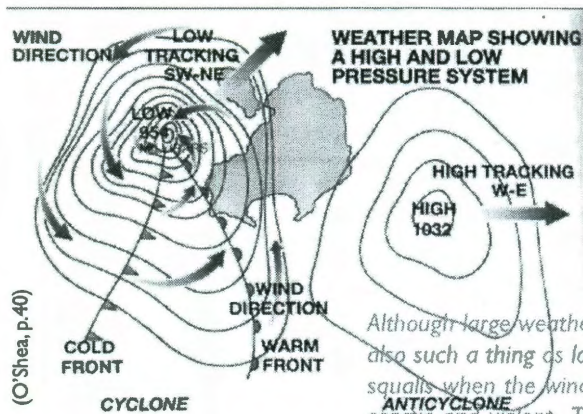
"Remember the strongest man on earth is no match for the power of the sea. Use this force wisely, like the old fisherman, and turn it to your own advantage. The remainder of any risk is then purely down to yourself and how far your conscience will allow you to push the limits." (O'Shea, p.7)

goes the fastest wins. The most interesting aspect of the sport is that in contrast to other racing sports that are powered by mechanical means street luge does not take advantage of any mechanically driven power. All the sport consists of is a person lying on a board only inches off of the ground trying to go as fast as possible down a specific course. In order for the lugers to generate speeds in excess of 55 mph, they must rely on gravity and a very sensitive "feel of the road." Feeling the road refers to the ability of the pilot to navigate through a given course through slight shifts in his or her body weight in order to generate the fastest speeds (Sportszone, ESPN). The pilot that pushes the edge of the envelope the most and is on the verge of being out of control without actually going out of control is usually the winner.

Windsurfing

The sport of windsurfing has its roots in both surfing and sailing. The first documented "sailboard"

was constructed by S. Newman Darby in the mid 1960's (Winner, p.1). However, during the late 1960's two Cali-



(O'Shea, p.40)

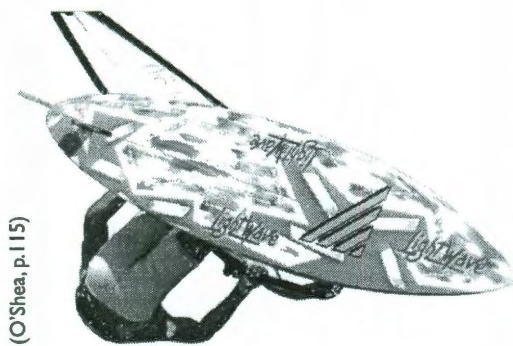
Although large weather systems are important, there is also such a thing as local weather. Sailors are often hit squalls when the wind strength and direction becomes erratic and violent. These squalls occur under a thick cloud with its own circulating air mass. Luckily there are warning signs - darker patches skimming across the water, an advancing shower and approaching thick dark clouds." (O'Shea, p.42)

fornians, an executive for a computer company named Hoyle Schwitzer and Jim Drake an aeronautical engineer, were the first people to patent and then begin to market windsurfing equipment (Winner, p. 1). The sport grew incredibly fast during the 1970's and by 1984 it was included as a sport

in the Summer Olympics (Winner, p.2). Today, some form of the sport is accepted on all of the shores around the world.

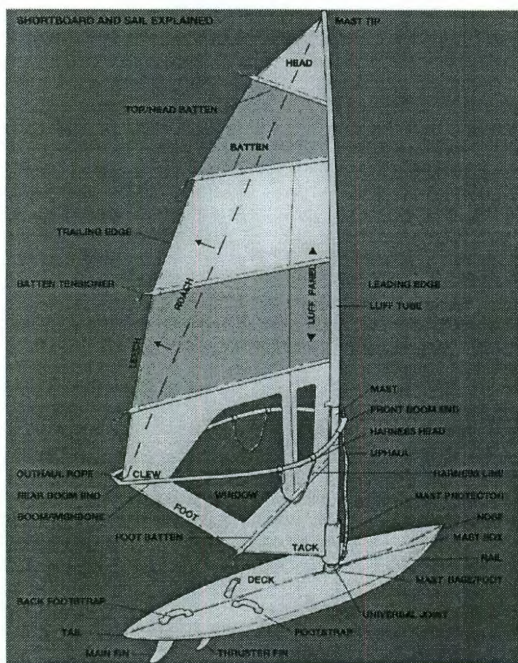
The sport to many spectators seems fairly simple- just attach a sail to a surf board and begin sailing. However, the sport is actually complicated and the participant must have, "... like the old fisherman..." (O'Shea, p.7) an in-depth knowledge of both air patterns as well as water currents and tides in order to exploit the potential embedded into the "site". Exploiting the potential of the "site" allows the participant to push the edge of the envelope through performing dangerous maneuvers or by generating extremely high speeds.

The sport of windsurfing has evolved considerably through advances in equipment technology. Based on ex-



(O'Shea, p.115)

"Expert high-wind surfers are like flying fish- as much out of the water as in." (Winner, p.2)



perience level and wind and water conditions, participants may choose from a variety of boards, sails, and fins to create the perfect assemblage of equipment. The board has been divided into two main categories: the longboard and the shortboard. The longboard is a big board that can be used in any condition and by any level participant and they range in length from twelve to twelve and a half feet long. Shortboards, which include the slalomboard, waveboard, and speedboard, are usually reserved for more advance sailors in more extreme conditions (O'Shea, p.17). As technology continues to improve, boards continue to get shorter, narrower, and lighter to allow the participant maximum flexibility. As an interesting side note in this trend toward shorter and lighter boards, during the late 1980's, a board was developed called the "sinker" that would sink under the weight of a person unless it was in motion (O'Shea, p.10).

In the simplest of terms, sails can be divided into four main categories with selection based, like the board, on the participants experience level and intent as well as the wind and water condition. The light- wind sail is the simplest to use and rig and the least expensive of the sail types. It is a fa-



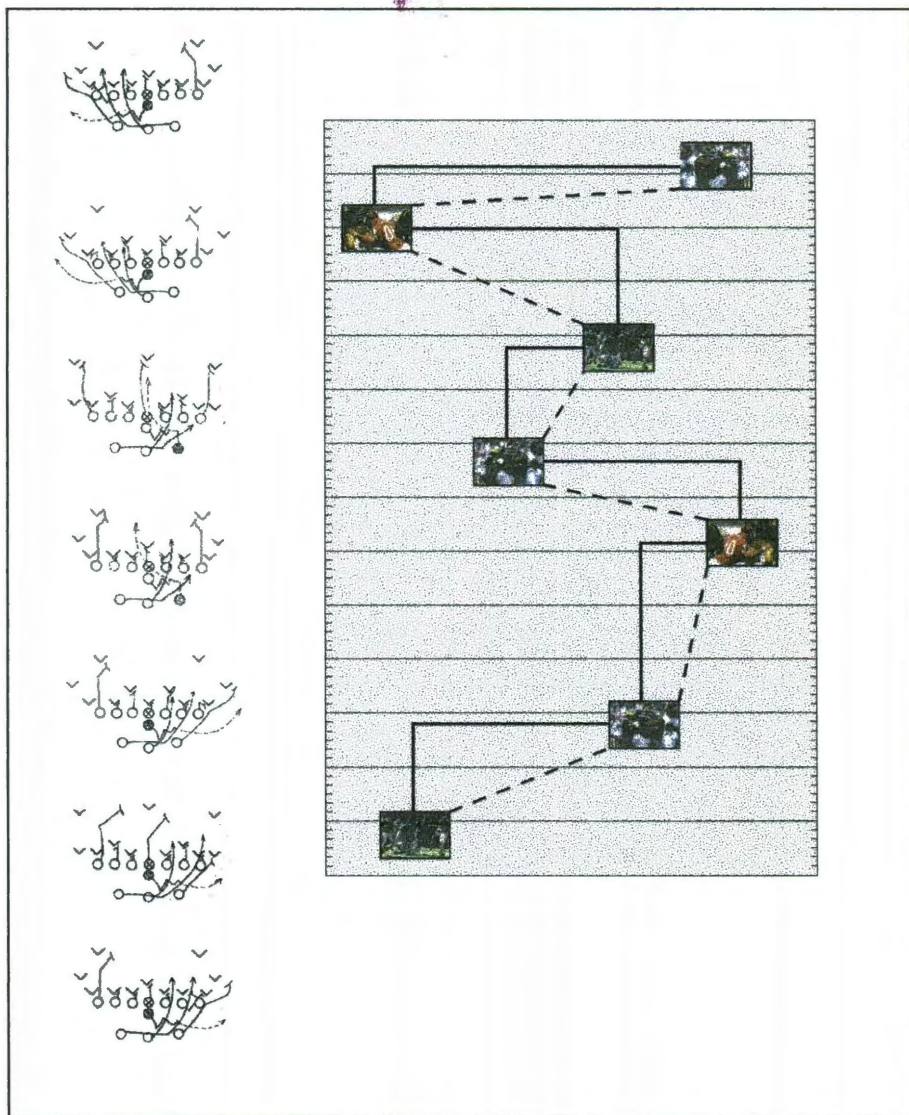
favorite of beginners in light wind conditions. The wave sails, like the light-wind sail, are simple and easy to rig; however, they are built for more extreme conditions. Slalom sails are more complex than the two previous sails and they are built with an intent toward speed (Winner, p.21). The final sail type is the race sail. Built rigid and stable, race sails are difficult to use but they produce fascinating results when in the hands of experienced sailors who are pushing the edge of the envelope in the world of windsurfing (Winner, p.21). The next and last major equipment selection to be made is the type of fin. The fin type is divided into five major categories: speed, wave, window, slalom, and the course racing fin (O'Shea, p.22). The fin is usually selected to match the board and sail selection.

As with the other extreme sports, a culture of dress and lingo has evolved with the development of the sport. The following is a list of some of the lingo used in the sport as compiled by Farrel O'Shea:

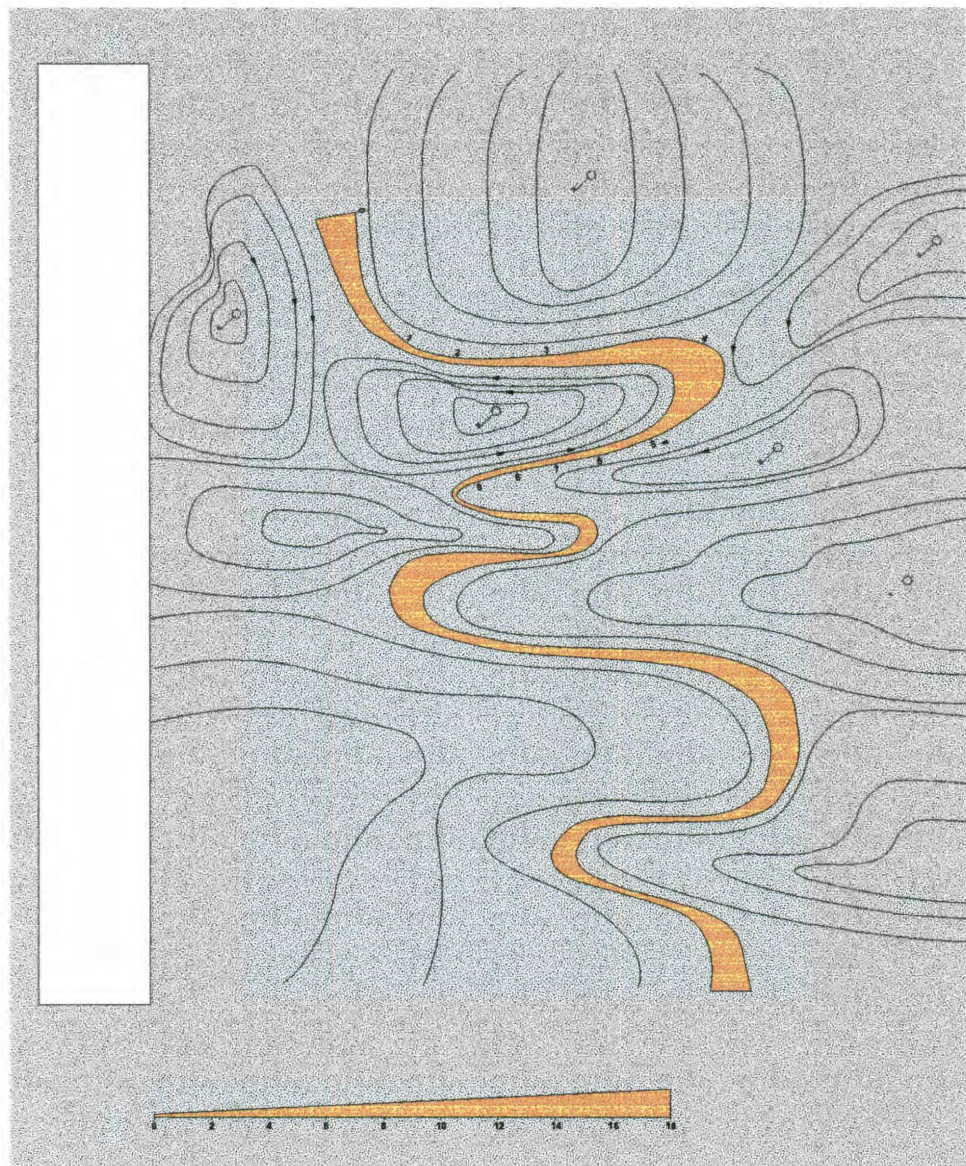
<i>"aerial-</i>	<i>a maneuver which is performed clear of the water surface, e.g. aerial gybe.</i>
<i>apparent wind-</i>	<i>a combination of the true wind and the headwind created by forward motion.</i>
<i>beam reach-</i>	<i>sailing at right angle to the wind.</i>
<i>broad reach-</i>	<i>the fastest point of sailing, half-way between</i>

	<i>a beam reach and a run, where the wind is directly behind.</i>
<i>carve-</i>	<i>to turn the board sharply by pressing the inside rail.</i>
<i>critical section-</i>	<i>the section of the wave closest to the breaking white water.</i>
<i>head up-</i>	<i>or luff up means to guide the board up into the wind.</i>
<i>killer loop-</i>	<i>common term for the full forward loop. Windsurfing's most spectacular maneuver.</i>
<i>speed-needle-</i>	<i>low volume boards specifically designed for speed trials, often as narrow as a mere 11 1/2" wide."</i>

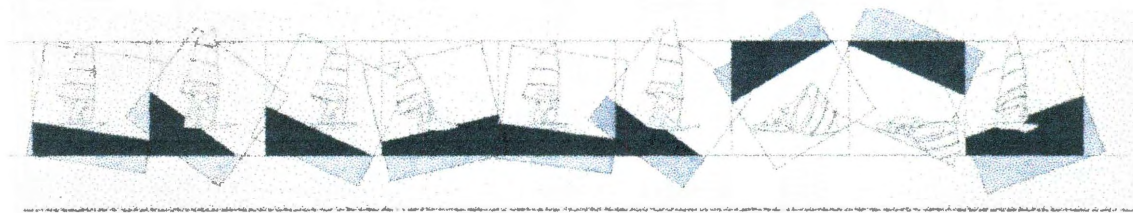
After studying extreme sports in these terms, one cannot help but begin to understand its similarity to the way one moves through the contemporary city. If the city is indeed seen as a dynamic organism dominated by "motion, time, and event" (Lerup, p.93), one must look at the city in similar terms to those used in the analysis of extreme sports. talk about christopher alexander and deluezes' diagonal.



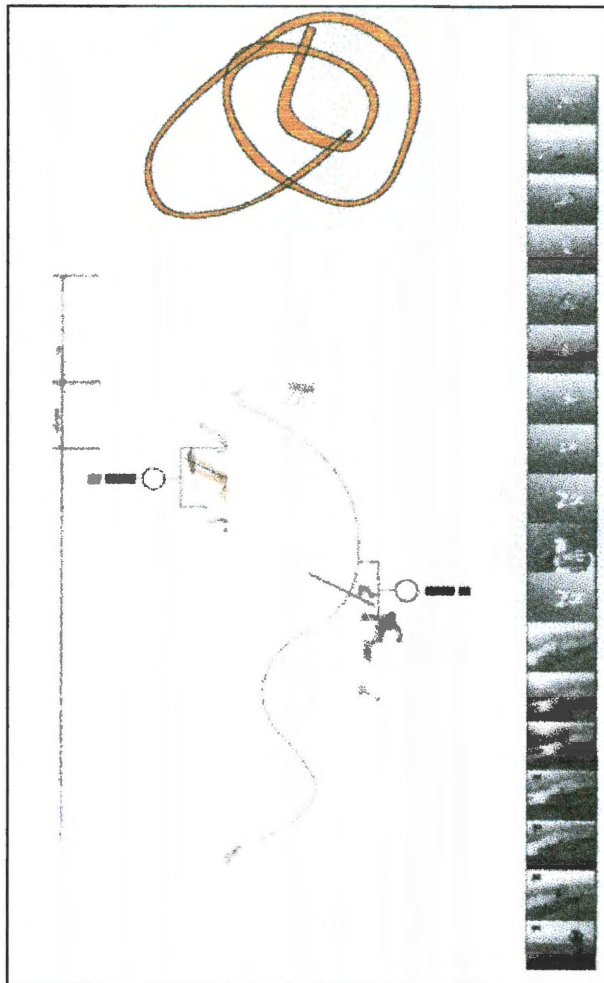
Analytical drawing of a football game
diagramming the striated nature of the
game over a 10 minute time span



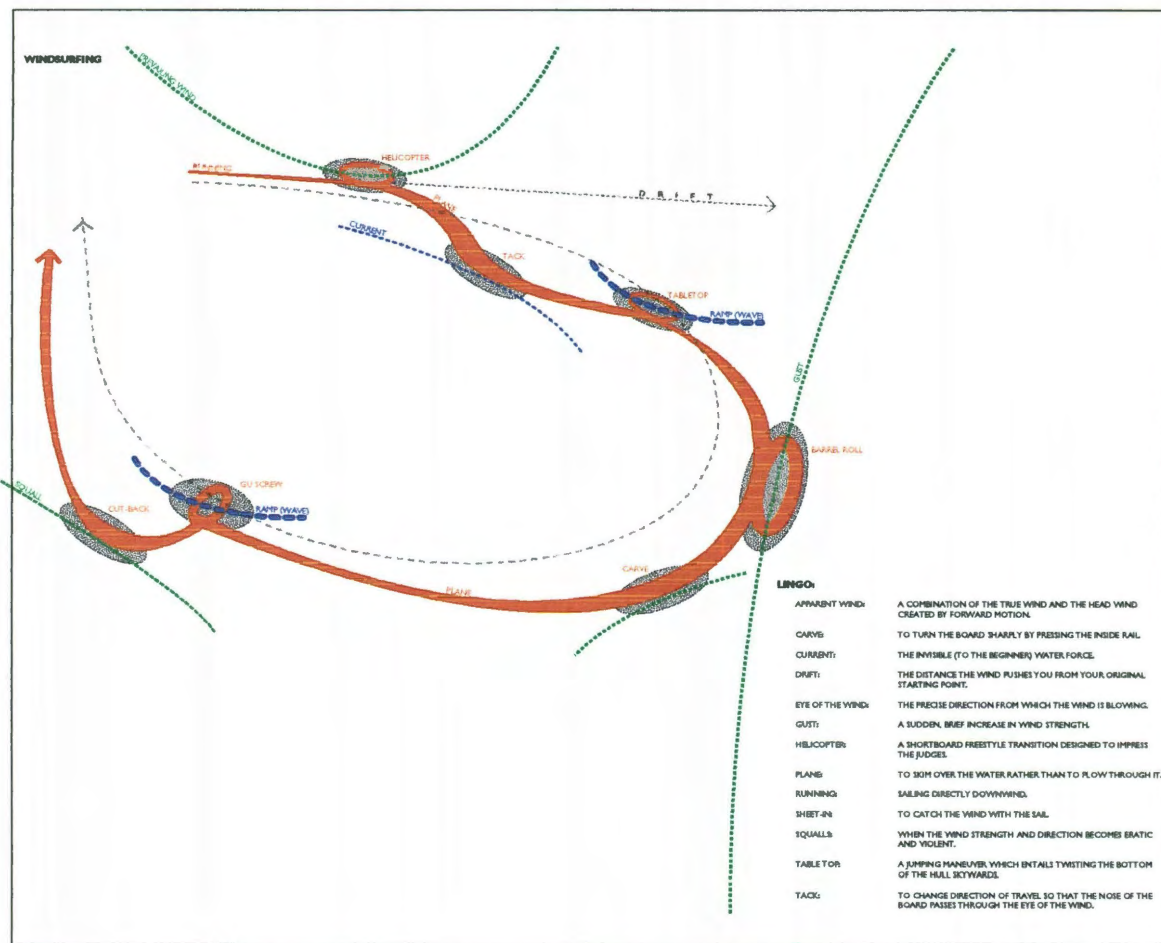
Initial attempt at mapping a windsurfer. The drawing is not extremely successful but it attempts to map the relationship between the windsurfer, the water current, and the wind for an 18 second span of time.



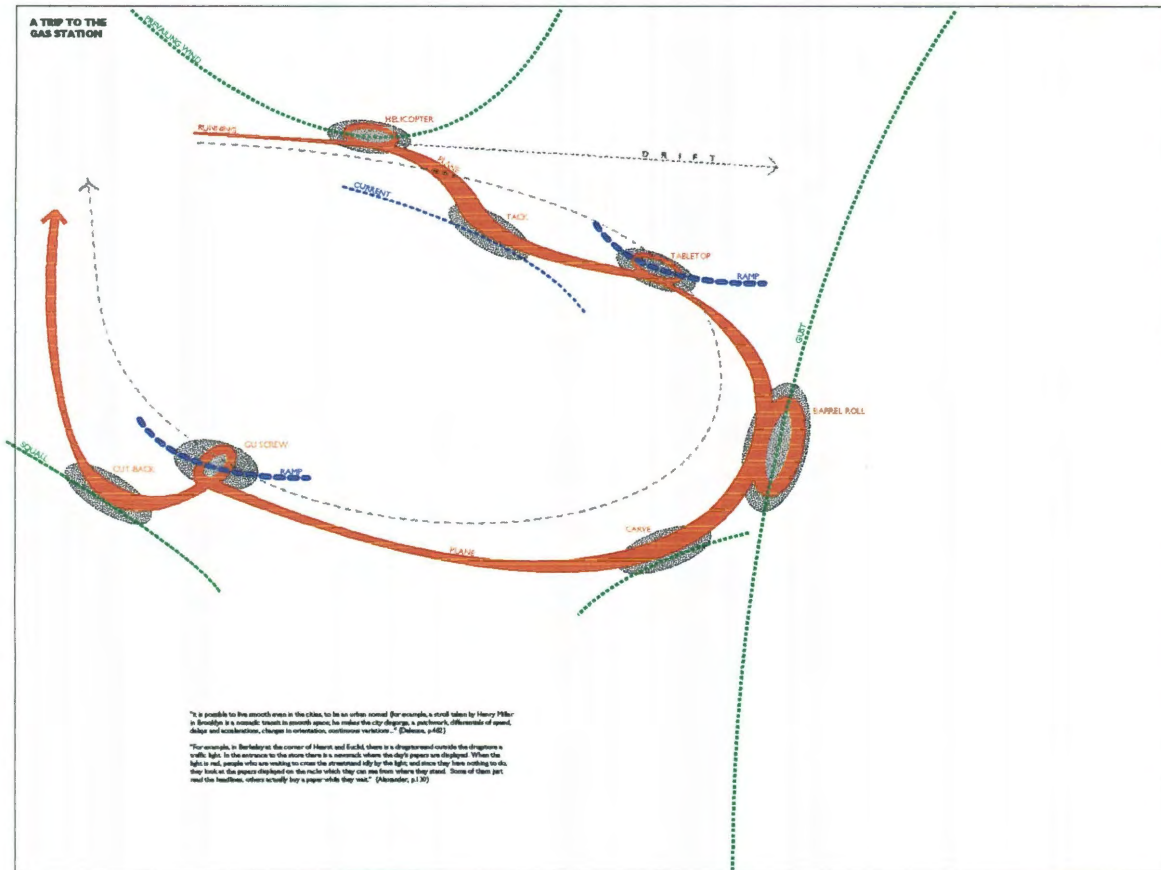
Drawing attempts to map a windsurfer for a 18 sec span of time. The drawing focuses on the relationship between the participant's frame of reference and the spectator's frame of reference.



Drawing attempts to map a skysurfer during a single jump. It focuses on the relationship between participant's position, the cameraman's position, the wind, and the spectator's position. Drawing attempts to map a windsurfer for a 18 sec span of time. The drawing focuses on the relationship between the participant's frame of reference and the spectator's frame of reference.



Drawing maps a windsurfing event. It focuses on the relationship between external forces and the participant's reactions. Also, it begins to graphically illustrate some of the windsurfing jargon.

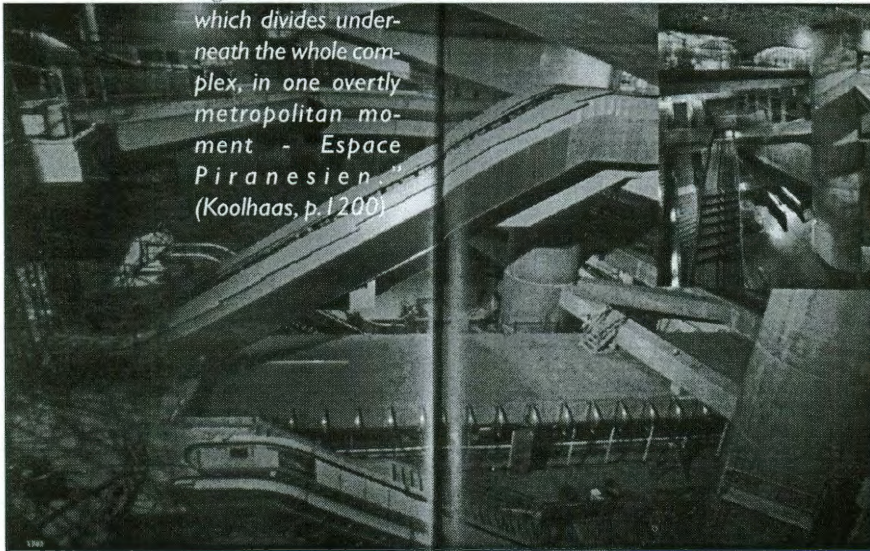


Based on the information learned from the extreme sport's mapping exercises, the drawing maps a person's path through the city. It focuses on the relationship between external forces and the person. Deleuze's concept of the diagonal and Alexander's "semi-lattice" were extremely important to the development of this diagram.

**case study #1:
rem koolhaas**

"OMA's only architectural intervention in the central sector was not an addition but a subtraction: at the point of greatest infrastructural density, an absence of building reveals the highway, railway, three levels of parking, and the metro, which divides underneath the whole complex, in one overtly metropolitan moment - Espace Piranesien."
(Koolhaas, p. 1200)

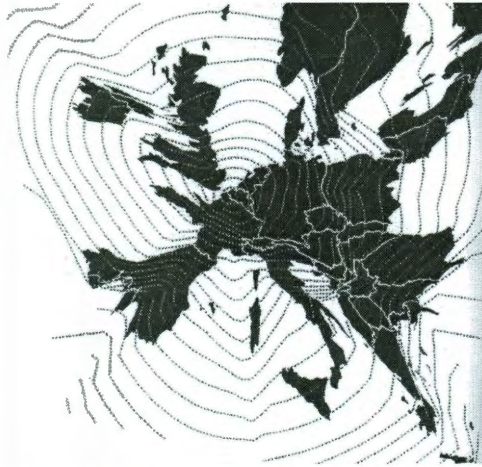
(Koolhaas, p. 1200)



Rem Koolhaas is one of the few contemporary architects that has attempted to "... harness the dynamics of development" in order to reestablish the profession of architecture within the urban realm. His work is important to this thesis because he has submerged himself in both the infrastructure and the "thininfrastructure" that shape the contemporary world and it has resulted in the development of an optimistic and aggressive architecture that seeks to redefine the role of architecture within contemporary

society and not just be the resultant of economic forces. One of the clearest examples of his aggressive and optimistic architecture is the

design for the International Business Center in Lille, France. With this



"Europe transformed" (Koolhaas, p. 1158)

project, Koolhaas submerged himself in the physical, economic, and social forces that were transforming Western Europe and created a dynamic organism of interrelated forces that is delicately balanced in a state of equilibrium. This dynamic organism is not a spectator to the world around it but instead is a vital and aggressive link of an international network. Through the development of this dynamic organism of interrelated forces, Koolhaas began to question and redefine some of the basic tenants of architecture and its relationship to the city: the idea of the master plan, the relationship of building to site, and the idea of public space. All of these issues become important when considering the design

"What is important about this place is not where it is but where it leads, and how quickly. We imagine a series of skyscrapers, towers that would suggest not a place, but a distance in time from various cities. The address would be defined as seventy minutes from London, fifty minutes from Paris, 18 minutes from Brussels." (Koolhaas, p. 1170)

of the downtown
"superstop".

It is important at this point to gain a quick understanding of the forces that were transforming Lille and Western



Site Plan (Koolhaas, p. 1158)

Europe. Prior to the 1990's, Lille was a midsize French regional city with a population of approximately 1,000,000 residents. However, two new developments occurred in the early 1990's that transformed Lille in a completely artificial way from a quiet regional city into a dynamic international city. The first was the construction of the tunnel between England and the European continent and the second was the decision to place a station for the new TGV network within the boundaries of the city (Sigler, p. 1156). With the development of the station, Lille suddenly became the center point and the connecting point between London, Paris, Brussels, and Rotterdam. It literally became the "... center of gravity for the virtual community of 50 million Western Europeans who lived within a 1 1/2 hour traveling distance" (Sigler, p. 1156). It must be understood that it was not the physical qualities of Lille that were important but the fact that it was "70

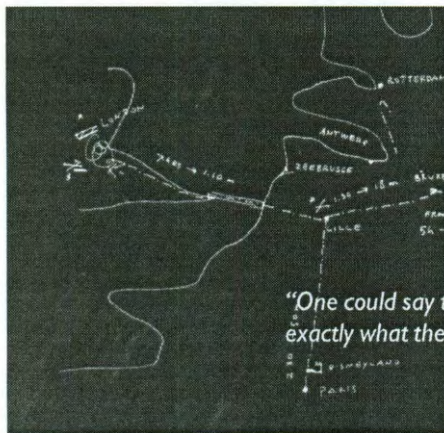
minutes from London, 50 minutes from Paris, and 18 minutes from Brussels”: the concept of time took precedence over place (Sigler, p. 1170).

The program for the project was a complicated one that would “...enrich the life in Lille but at the same time be autonomous” because it was part of a much larger network than the rest of the city (Sigler, p. 1160). It consisted of a network of transportation systems: a boulevard, tramway, parking lots, two metro lines, and most importantly the TGV station and an agglomeration of business and civic entities: a conference center, shopping

mall, cinemas, theaters, hous-

ing, scientific park, recreational facilities, galleries, and an urban park (Lucan, p. 118). With a program this large, the project had to be conceived of as inserting an entirely new city into an existing town (Sigler, p. 1160). Koolhaas’ assigned role in this project

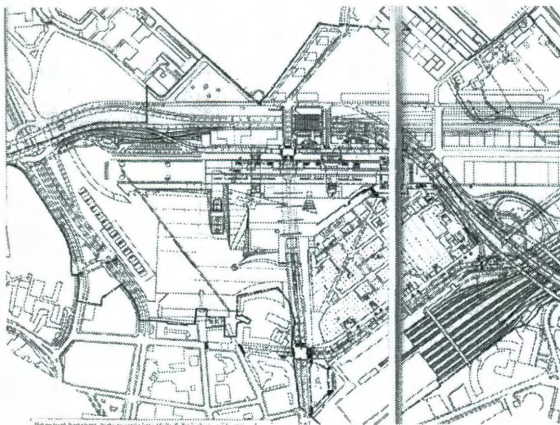
(Koolhaas, p. 1157)



was that of master planner.

In a similar situation, many contemporary architects would have taken the more traditional approach of designing a traditional master plan that would lay out the complete design far into the future. However, Koolhaas views the master plan as a limiting and out of date entity that is no longer viable in the continually evolving world. As a result, he adopted more of a “master programmer’s” (Maki, p.) approach which consisted of defining relationships and interfaces of programmatic instead of designing rigid formal entities (Sigler, p. 1184). By defining relationships and interfaces, the design was a dynamic organism that was extremely fluid and could evolve over time as external and internal parameters changed. This idea of the master program though largely ignored by the contemporary architectural profession was first proposed over thirty years ago by the Japanese Architect Fumihiko Maki in his 1964

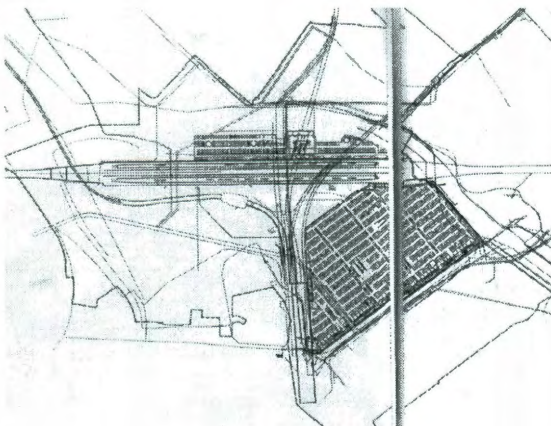
book Investigations in Collective Form. In this book, Maki defined urban society as "... a dynamic field of interrelated forces..." and "... any order introduced into this pattern of forces contributes to a state of dynamic equilibrium which will change as time passes" (Maki, p.). Because of his belief in the dynamic and fluid qualities of society and cities, Maki felt that the master program would offer a mobile and flexible alternative to the more traditional master plan (Maki, p.).



lower level: Infrastructure
(Koolhaas, p. 180)

Koolhaas' specific design for the master program of the new city (i.e. the International Business Center) in Lille incorporates a level of programmatic and formal complexity that has long been absent from contemporary architecture and urbanism. Most current developer driven design (i.e. the Woodlands and First Colony) sees complexity as a evil; therefore, it tries to simplify and hierarchically arrange-

ment both the program and the formal relationships (Sigler, p. 1174). However, Koolhaas, following similar concepts that Christopher Alexander outlined in his article A City is Not a Tree , designed the business center not as a hierarchically organized tree but instead as a highly complex “semi-lattice” structure in which no single entity could be independent of or superior to another entity (Alexander, p.). Jean- Paul Baidetto, “the father of the plan”, referred to the complex structure of the design as a “...dynamic from hell” (Sigler, p. 1208).



Site Plan (Koolhaas, p. 1180)

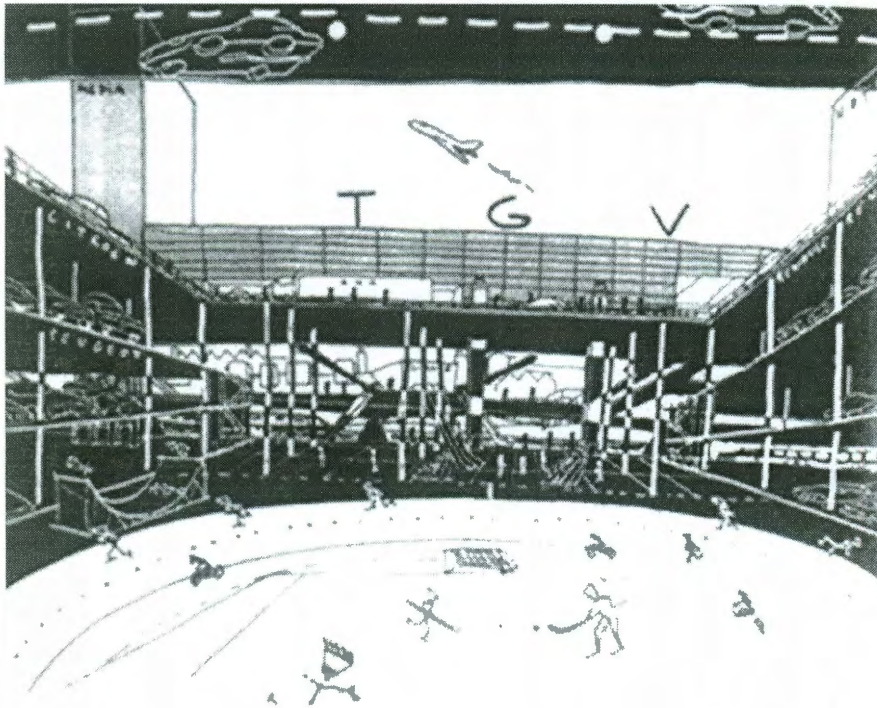
The complexity of this project also led to a redefinition of the relationship of building to site. One only has to look at Houston to understand the typical American relationship between building and site. Within Houston, buildings are conceived as pristine little objects that try to separate themselves from the functional workings of the city. As a result, they float

in this flat plane of placelessness. Koolhaas, on the other hand, developed a type of organic architecture in which the buildings did not try to separate themselves from the site but instead the buildings and site became different phases of the same system (Sigler, p. 1170). Koolhaas' organic architecture is quite similar to the organic architecture proposed by Frank Lloyd Wright at the beginning of the twentieth century; however, with two major differences. First, Wright's organic architecture dealt quite literally with the natural qualities of the beautiful landscapes that the buildings were situated in; whereas, Koolhaas' organism dealt with an extremely artificial landscape of trains, trams, bus, cars, and economics. Second, Wright's concept of "site" was limited to the immediate surroundings of his buildings; whereas, Koolhaas' "site" was not only the immediate surroundings of the city but also London, Brussels, and Paris.

In following his organic beliefs, Koolhaas conceptualized the project as a dynamic living organism in which the buildings and the “site” (i.e. the trains, trams, buses, and cars) were not considered separate entities but instead were considered different phases of the same system (Sigler, p.1170). The movement, speed, and fluctuation of all these systems is seen as a form of beauty. The project almost literally expands and contracts as it absorbs and then relinquishes all of the different flows that passes through its body. This relationship of building to “site” can be traced back to the Futurist movement at the beginning of the century.

The final point to discuss about the International Business Center in Lille is the notion of public space. Traditionally, the architectural theoreticians have discussed the need for the development of new public spaces within

our cities. However, within contemporary cities traditional public spaces



"Espace Piranesien" (Koolhaas, p.1200)

are no longer as successful as they once were. In the development of this project, Koolhaas was part of developing a new type of public space. The station is "... public in a new ..." because it is

at the interspace of all the countries connected by the TGV or in different terms it is the physical crossing point between London, Paris, Brussels, and Rotterdam. This notion of public is exemplified in Koolhaas' only architectural intervention within the central sector the "Espace Piranesien" (all of the other buildings within the central section were designed by various European architects) (Sigler,

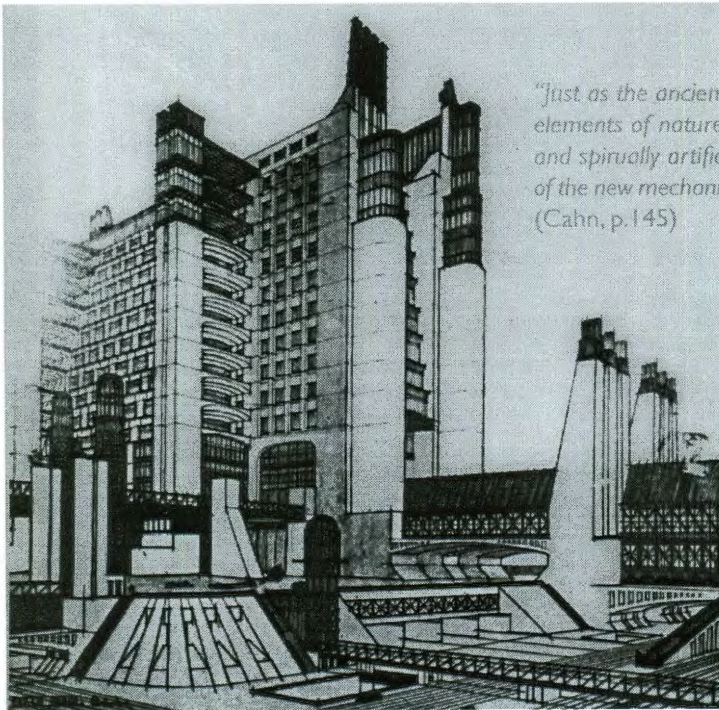
p.1200). This intervention which was actually a void is a large opening within the dynamic organism which allowed for the simultaneous viewing of the metro, three levels of parking, the railway, and the highway (Sigler, p.1200). It allows for a quick glimpse into the inner workings of the organism.

The work and writings of Rem Koolhaas has definitely begun to redefine the role of architecture within contemporary society. Through his understanding and manipulation of the dynamic forces that shape society, Koolhaas has begun to succeed in removing the spectator mentality from his architecture and providing a new aggressive architecture that is a vital link in the modern city.

case study #2:
the futurists

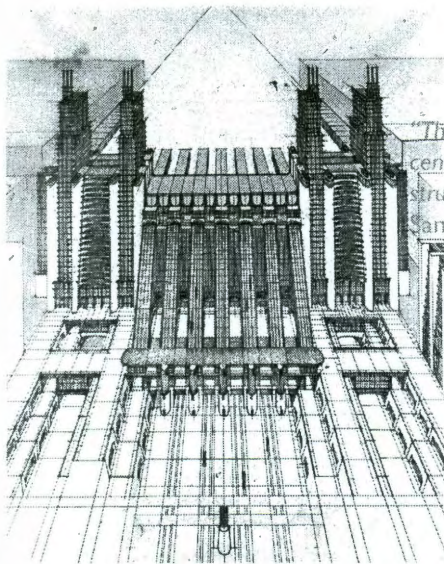
The Futurist, like Koolhaas, conceived of the city as a dynamic living organism in which movement and speed were beautiful (Kwinter, p.85). Sant'Elia's design of a station for trains and planes is a perfect example of this mentality. Because of this mentality, this project is an excellent precedent study for understanding the role that the "superstop" could play within the city and its relationship with the modes of movement within the city. The design, much like Koolhaas', takes pride in celebrating the transportation systems that it connects. With

(Hulthen, p. 217)



"Just as the ancients took their artistic inspiration from the elements of nature, so too must we - [who are] materially and spiritually artificial - find our inspiration in the elements of the new mechanical world that we have created." Sant'Elia (Cahn, p. 145)

(Hulten, p. 219)



There is then, the picturesque, rapid description of the 20th century city, which is similar to an immense, tumultuous construction site; agile, mobile and dynamic in its every aspect." Sant'Elia (Caramel, p. 44)

the intense network of systems in Sant' Elia's design it is "... difficult to say whether the stations system is embedded in the city's fabric or if it is the city which runs freely through the station" (Kwinter, p. 105). It, like Koolhaas' center, becomes "... less a building than a field of convergence and link up for many systems of flow" (Kwinter, p. 106). Sant' Elai's station through it's fascination with the modes of movement was able to shed the spectator quality that has dominated architecture and instead become an active and aggressive force within the city. Through their submersion into the infrastructural and economic flows that dominate society the Futurist were able to extract something beautiful out of it.

**case study #3:
the curtain wall**



The dominating curtain wall around the bank lobby sparked an interest in the history of the curtain wall and its role in today's society. The lessons learned from this analysis is extremely important to the theoretical underpinnings of this thesis. This study focuses on three of the major players in the history of the curtain wall: Mies van der Rohe, Ludwig Hilberseimer, and James Carpenter.

Historically, the curtain wall (more specifically glass) has been seen through extremely utopian eyes. According to Ricardo Scofidio, the development of the curtain wall during the early 1900's was intended to create a new spatial and social order within society through the dematerialization of the wall. The curtain wall revolutionized architecture spatially because the wall no longer visually divided space (inside and outside became one and individual rooms were perceived as one room). Socially, the curtain wall revolutionized society by making available that which was previously hidden. Information was no longer the property of a select few in a small dark room but instead it was available to all (Scofidio lecture). This utopian view of the curtain wall no longer applies in today's culture. Instead of being about the dematerial-

Georg Grosz's *Friedrichstrasse*

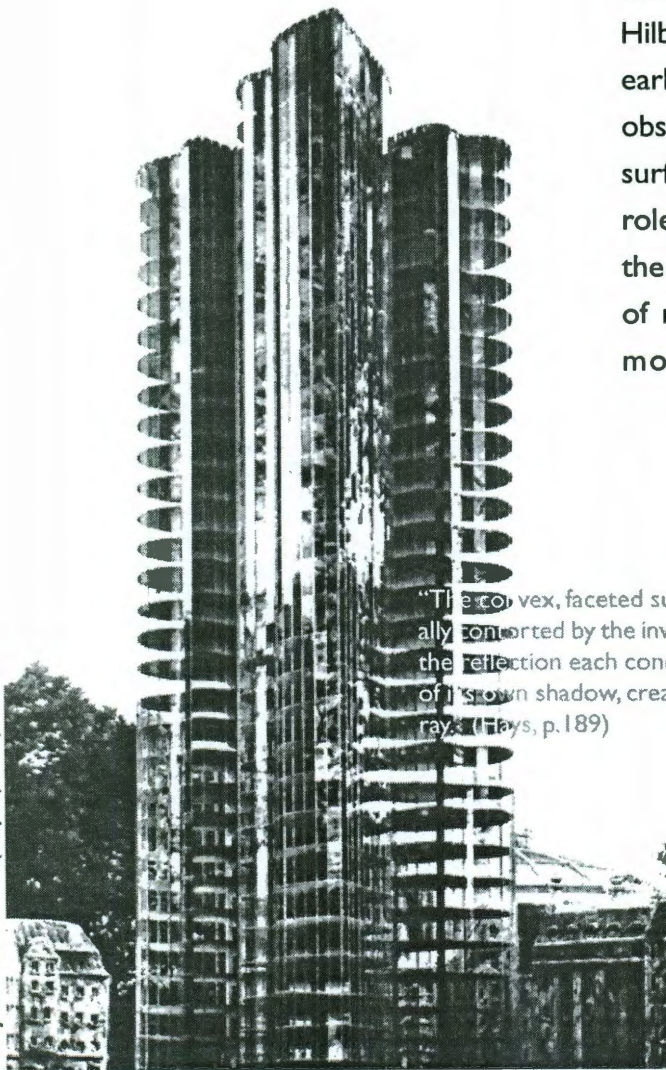


ization of the wall, the curtain wall today has become one of the strongest political lines (barriers) in the city. The curtain wall is now the symbol of corporate America.

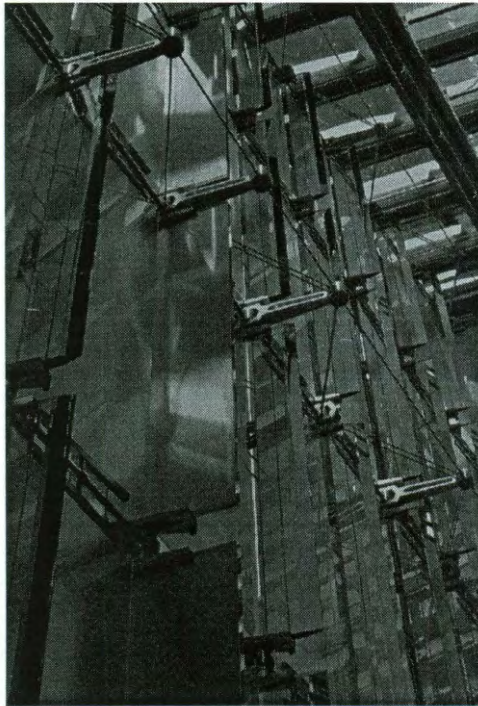
Another aspect of the curtain wall that is explored in the project is the surface quality of glass. Michael Hays, in his article "The Crisis of Form, the Dissolution of the Object", explores the surface quality of glass by comparing Mies van der Rohe's curtain wall with Ludwig Hilberseimer's curtain wall. During the early stages of his career, Mies' was obsessed with the manipulation of the surface quality of glass specifically the role of reflections on the surface of the glass. Through the development of reflections, Mies was able to remove the building "...from the atemporal, idealized realm of autonomous form and install it in a specific situation in the real world of experienced time, open to all the chance and uncertainty of life in the metropolis" (Hays, p.189). According to Hays, the elevations of Mies' early work change continuously in relation to the changing context. Georg Grosz's *Friedrichstrasse*, drawn in 1919, exemplifies this ability of glass to absorb the surroundings into its surface. Mies' skyscraper project of 1922 is a perfect example of his ob-

session with reflections. The faceted glass facades of this project intensify the reflections. Hilberseimer, on the other hand, denies the surface of the glass. In his renderings, the surface of the glass disappears and we only see "... the blankness of the page through the empty openings" (Hays, p.197). Humanism, the Dissolution of the Object", explores the surface quality of glass by comparing Mies van der Rohe's curtain wall with Ludwig Hilberseimer's curtain wall. During the early stages of his career, Mies' was obsessed with the manipulation of the surface quality of glass specifically the role of reflections on the surface of the glass. Through the development of reflections, Mies was able to remove the building "... from the

Mies' skyscraper project, model for study of reflections (Hays, p.188)



"The convex, faceted surfaces of the project are perceptually contorted by the invasion of circumstantial images, while the reflection each concavity received on it's surface is that of it's own shadow, creating gaps that exacerbate the disarray." (Hays, p.189)

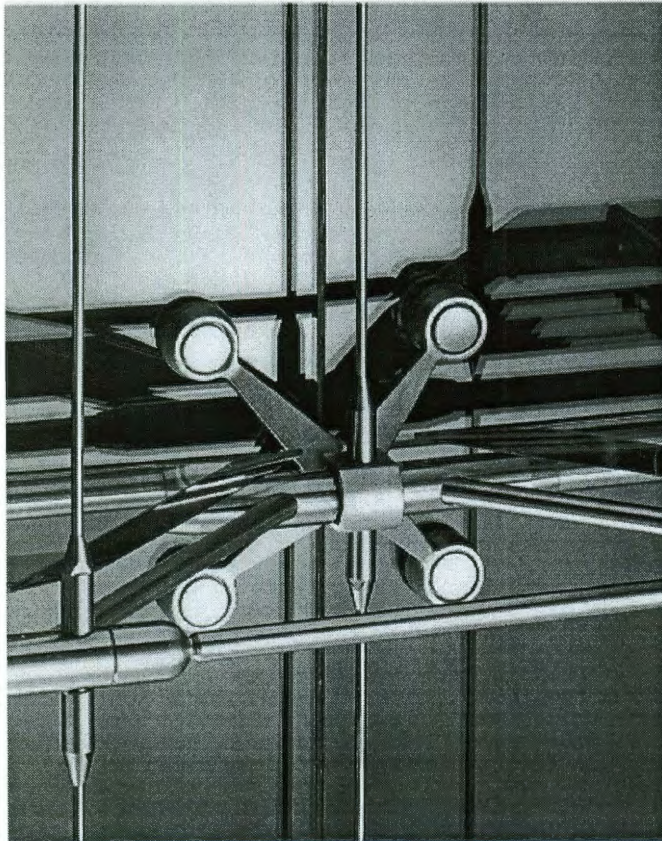


Carpenter's Refractive glass wall, "stainless steel truss stabilizes curtain wall". (Barreneche, p.111)

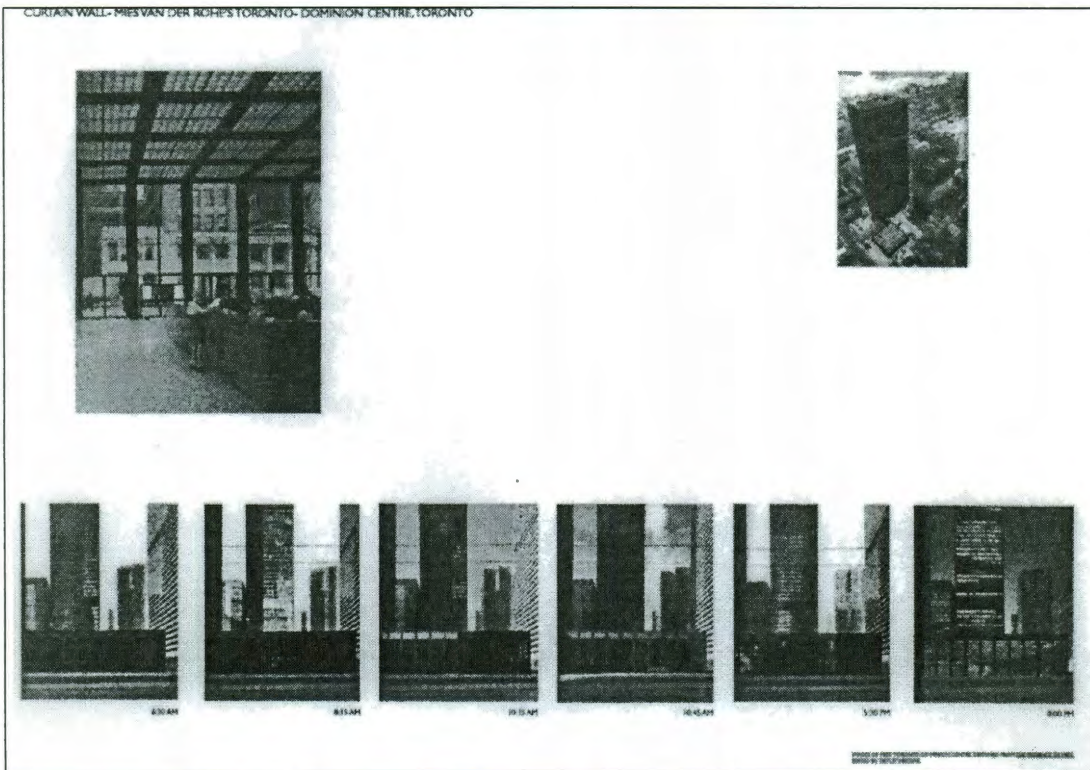
atemporal, idealized realm of autonomous form and install it in a specific situation in the real world of experienced time, open to all the chance and uncertainty of life in the metropolis" (Hays, p.189). According to Hays, the elevations of Mies' early work change continuously in relation to the changing context. Georg Grosz's *Friedrichstrasse*, drawn in 1919, exemplifies this ability of glass to absorb the surroundings into its surface. Mies' skyscraper project of 1922 is a perfect example of his obsession with reflections. The faceted glass facades of this project intensify the reflections. Hilberseimer, on the other hand, denies the surface of the glass. In his renderings, the surface of the glass disappears and we only see "... the blankness of the page through the empty openings" (Hays, p.197).

Recently, James Carpenter has been involved in an intense study of the curtain wall. Educated as both a glass sculptor and an architect, Carpenter pushes the visual and physical qualities of the curtain wall to levels never seen before. At the most basic level, Carpenter exploits the material qualities of the curtain wall. He is continually exploring the relationship between the glass and the break metal (or aluminum). On a more intellec-

tual level, Carpenter's curtain wall follows, on a certain level, the conceptual ideas evident in the early work of Mies van der Rohe. Mies' interest in the ability of glass to create reflections is a central point in Carpenter's design work. This interest in reflections has led him to pioneer the transfer of diachroic technology to architectural glass" (Norris, p.64). This new technology allows colored shadows to be created when light passes through the glass.-



(Barreneche, p. 112)



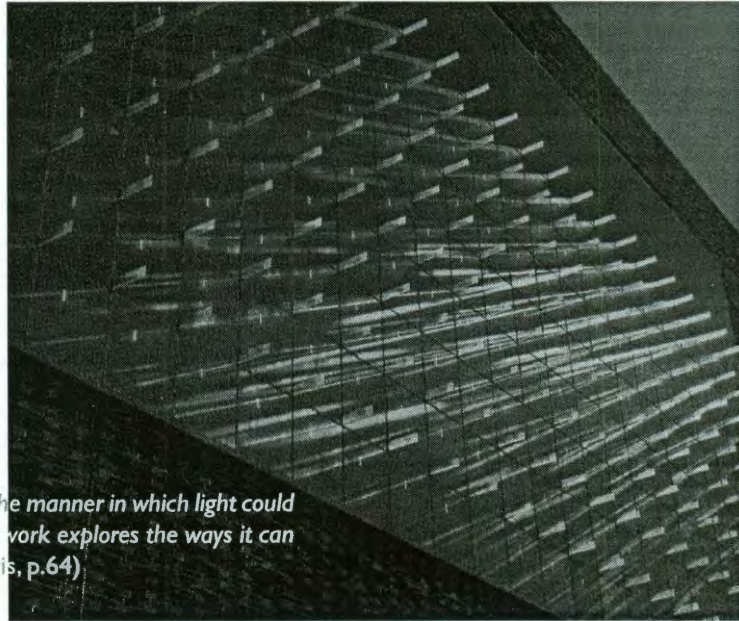
Using a series of photographs of Mies' Toronto Center from The Presence of Mies, the drawing attempts to map the surface quality of the glass facade at specific times during the day.

"A comparison of Hilberseimer's language of drawing with that of Heinrich Maria Davringhausen's "The Profiter" is inescapable, and it is a language Hilberseimer was to employ throughout his early career: the reduced surfaces, windows as opaque swaths barely adhering to the exterior surface of the building, the absence of glass from the window openings, the relentless repetition and starkness of the environment. (Hays, p.197).



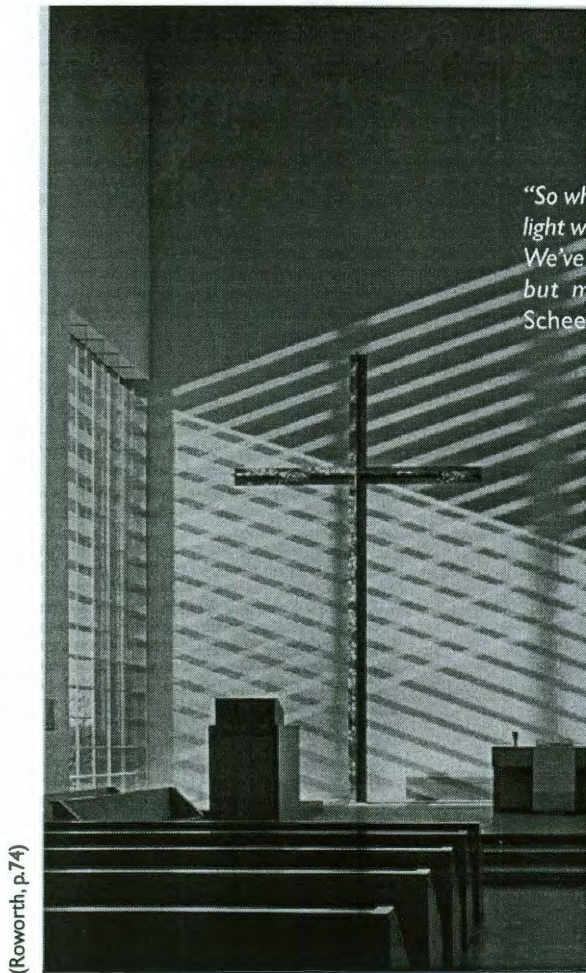
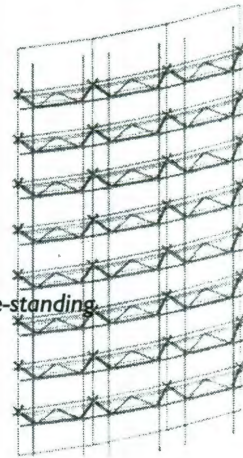
Heinrich Maria Davringhausen's "The Profiter"

"If Carpenter's early works explored the manner in which light could be contained in glass, then his newer work explores the ways it can be transmitted and reflected." (Norris, p.64)



(Barreneche, p. 113)

*"Arch Truss Wall, project for two long, curved, free-standing
diachroic glass and steel walls." (Abitare, p.204)*



(Roworth, p.74)

*"So what we're aiming for isn't greater insensity of light. The
light we've got is too strong already, its become unbearable.
We've got to aim for a dimer kind of light. Not more light
but more colored light should be our motto" Paul
Scheer bart's Architecture of Light*

transportation in houston

Houston like most other urban metropolises is obsessed with the automobile. One need only look at the sprawling, undulating freeway system that ties Houston together like a giant string to understand its dependence on the automobile. For most Houstonians, the car is the only way they would ever consider moving around the city. This dependence on the automobile along with the large increases in population over the past fifty years has created massive increases in the amount of registered automobiles in the Houston area. The number of registered automobiles in the Houston has increased from 601,813 in 1960 to over 2,000,000 by the mid-1989's (Papademetriou, p.85).

Because of this dependence on the automobile, mass transit in Houston

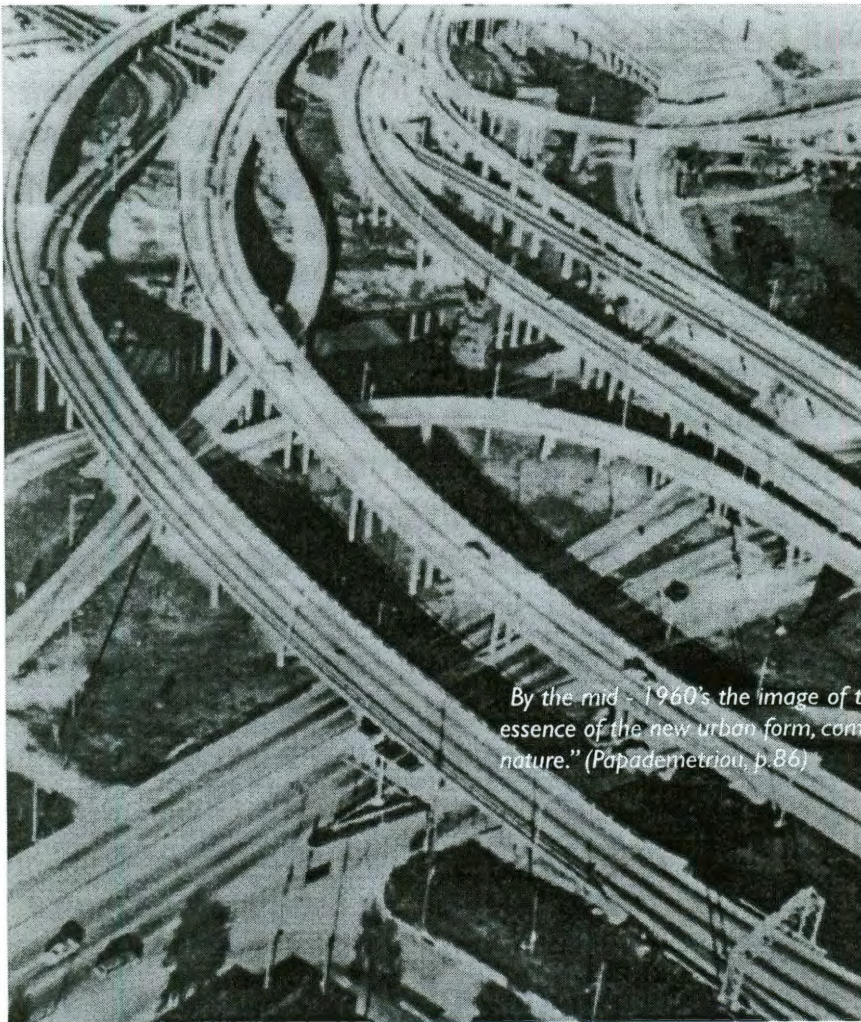
has always had trouble getting funding. During the 1940's, 50's, and 60's, the City of Houston saw the freeway system as the answer to all of its problems. However, soon the city realized that this singular



(Papademetriou, p.87)

emphasis on automobile transportation / freeway system was beginning to cause as many problems as it originally was meant to solve (Papademetriou, p.87). By the mid-1970's, congestion on the freeway system was beginning to cause huge problems. This problem was publicly announced in 1973 when the Houston - Harris County Transportation Plan stated "...Failure to cope with the growing urban transportation system

would cause a tremendous loss on investment and life to the economy of the Houston Metropolitan Area" (Papademetriou, p.91).



By the mid - 1960's the image of the freeway captured the essence of the new urban form, coming to represent its basic nature." (Papademetriou, p.86)

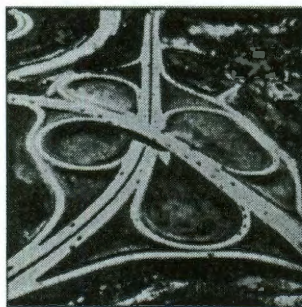
(Papademetriou, p.86)

(Papademetriou, p.83)



Murel Goodell promoted in 1956 a monorail system to solve Houston's transportation problem. In 1966, he installed a "sky taxi" at Hobby airport but it was declared "... an eyesore" and closed down. After the "sky taxi" was closed down, Goodell moved to Utah and the proposal has never again been addressed. (Papademetriou, p.83)

(Papademetriou, p.86)



Houston's answer to the need for mass transit was the development of a bus system. During the 1970's, the bus system alternated between private ownership and private owner-

ship. Throughout the decade the system continued to struggle financially (Papademetriou, p.95). Not until the development of METRO did the bus system begin to grow financially as well as geographically.

METRO as we know it today was created in August of 1978 (METRO, p.1). While a bus system will never have an impact on the city like that of a subway system, METRO has continued to improve the transportation problem in Houston. "Ridership has ballooned over 80% from 33 million annual passenger trips in 1978 to over 60 million in 1991" (METRO, p.2). In addition to creating more routes throughout the city, METRO has been involved in developing park and ride



facilities around the city as well as HOV lanes that extend out in all direction from the central city. METRO's latest invention is the development of a d o w n t o w n

"superstop" in association with the City of Houston and the Downtown Management District. The purpose of the "superstop" is provide a hub that will connect the bus routes and HOV lanes with the tunnel system downtown.

The tunnel system is a network of privately owned tunnels that link together the major buildings downtown. Begun in the first half of this century, the tunnels provide an air - conditioned passage between the buildings. When the tunnels enter into a building's basement a mall type area is usually developed.



Despite creating a convient passageway, the tunnels have had an adverse affect on the downtown area. First,

the tunnels have completely separated the economic classes. The people that travel in the tunnels are usually the white - collar, corporate, skyscraper inhabitants while the only people who walk at street level are, in Lars Lerup's words, the "third world inhabitants". These "third world inhabitants", lower class, blue - collar employees, are restricted from the private entrances into the tunnels. As a result of this separation, the downtown area lacks the diversity and density of pedestrians that occurs in other downtown areas. Second, the mall phenomenon that develops in the building basements eliminates the need for any small businesses at the street level. As a result, the street level consists mainly of empty storefronts while the private tunnel system is packed with

small businesses. With most of the larger corporations having already relocated to the suburbs and all of the small business located in the tunnels, the downtown really struggles to have any kind of real activity.



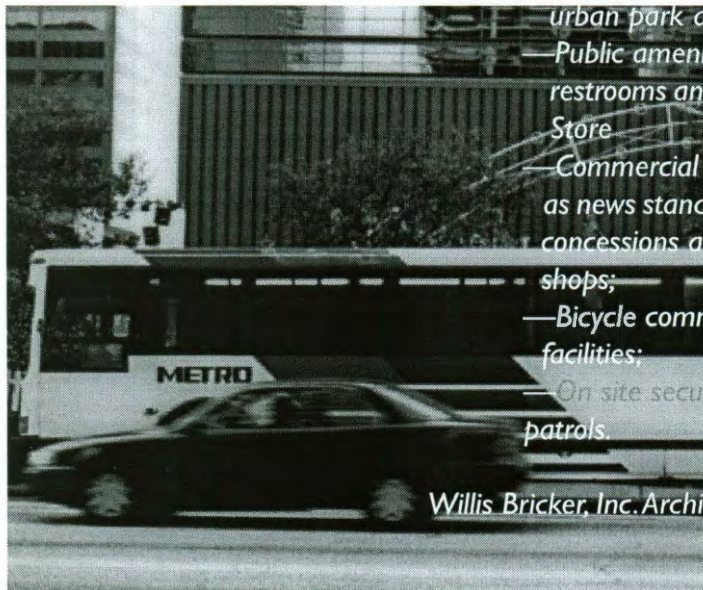
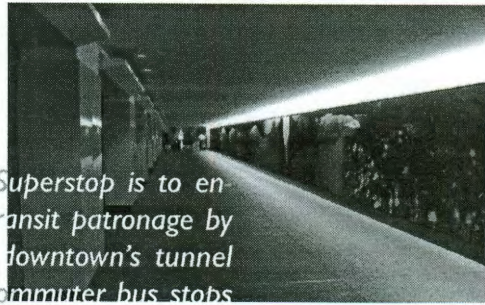
typical downtown tunnel

program

"The intent of the Superstop is to encourage increased transit patronage by directly connecting downtown's tunnel system to existing commuter bus stops and new van carpool facilities on a centrally located site. The Superstop would provide safe, weather-protected accessways between the existing bus stops, new van/carpool facilities and the tunnel system thereby enhancing pedestrian access. By increasing transit patronage and carpool use, the project will help alleviate traffic congestion and reduce air pollution. The Superstop would likely contain the following features:

- Safe, weather-protected bus and van/carpool staging areas;*
- Safe, weather-protected accessways from the staging areas to on site tunnel entrances;*
- landscaped plazas with urban park amenities*
- Public amenities such as restrooms and a METRO Ride Store*
- Commercial amenities such as news stands, food and drink concessions and other small shops;*
- Bicycle commuter storage facilities;*
- On site security office and patrols.*

Willis Bricker, Inc. Architects"



site

The site for the intervention is an abandoned bank lobby in downtown Houston. Once the jewel of downtown, the building no longer functions within the forces of the city. Designed in 1961 by Gordon Bunschaft of Skidmore, Owings, and Merrill, the building exemplifies the modern style that dominated American architecture in the 1960's. Upon first viewing the structure, one cannot help but see similarities to the work of Mies van der Rohe. In fact, the Toronto - Dominion Centre designed by Mies in Toronto is virtually the same building as the Houston Building. (An interesting side note: the Houston building was actually completed before the Mies building) The complex consists of a 32-story office building sitting next to a single story bank lobby. When it was completed in 1961, it

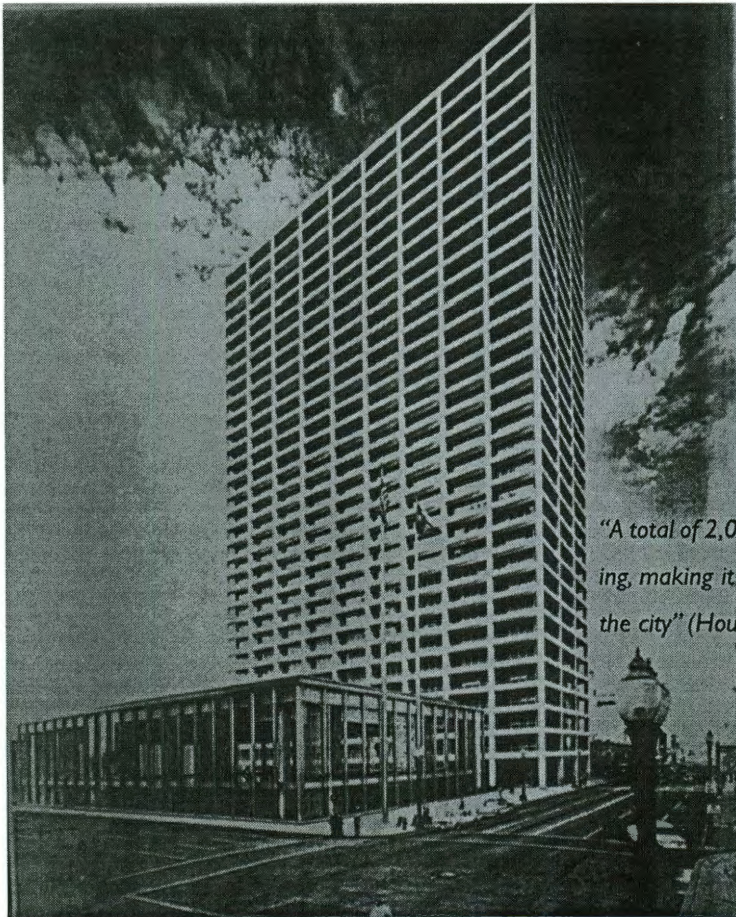


"The new ultra - modern First City National Bank Building represents everything which is most advanced in planning, in design, in materials, and in equipment" (Houston Post, Sec 9, p.7)

dominated the Houston skyline. The design of this complex set the tone for most of the skyscrapers that SOM built during the 1960's (Woodward, p.17).

The bank lobby is an amazing structure. With a clear span of 120 feet and no interior partitions, the building epitomizes the free plan concept of the 1960's. In a time when individual offices still dominated the typical corporate office structure, the free plan of the building allowed 111 em-

ployees to share one giant office at its opening (Ernst, p.153). This large office is enclosed with a thirty-five foot high glass and aluminum curtain wall (Houston Post, 2/5/61, sec 9, p.10).

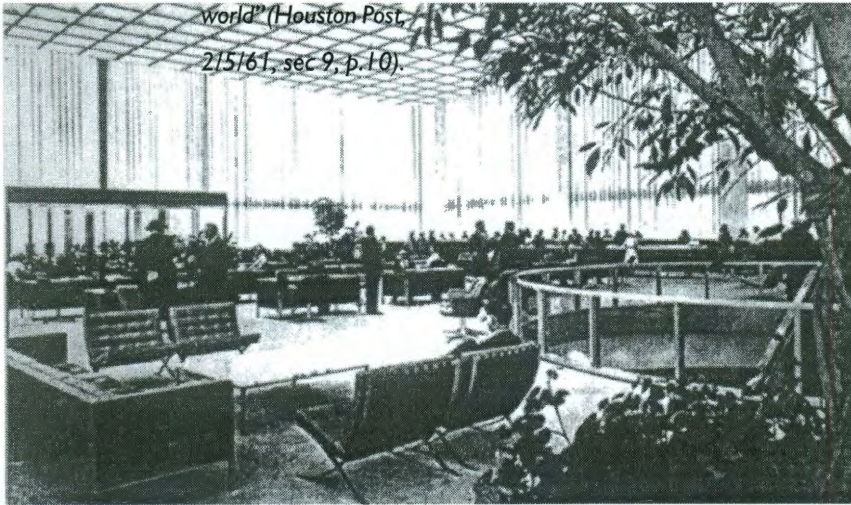


(Danz, p.152)

"A total of 2,000 pairs of wires will feed the building, making it the largest telephone wiring job in the city" (Houston Post, 2/5/61, sec 9, p.3)

"Its walls are giant panels of plate glass, each measuring 35 feet high from the sidewalk to the roof. It was said they are the largest plate glass panels ever manufactured in the United States, possibly the

world" (Houston Post, 2/5/61, sec 9, p.10).

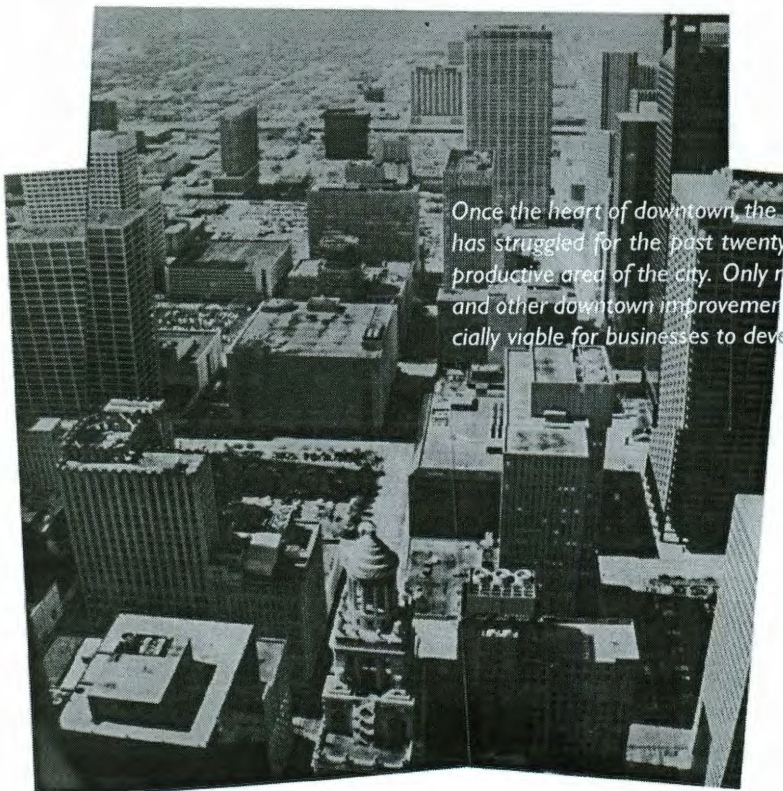
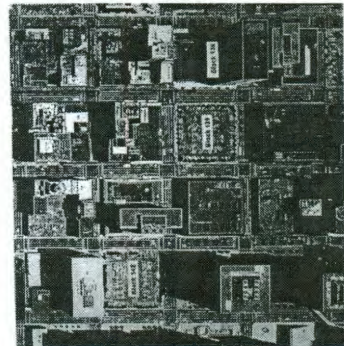


(Danz, p.157)

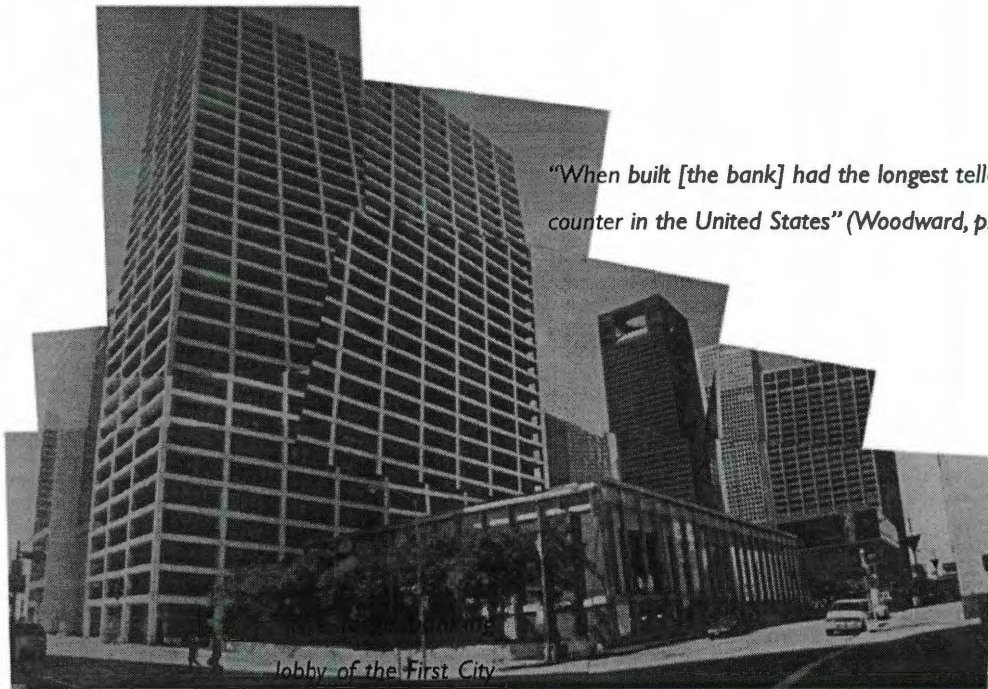
The ceiling of the structure is conceived of as one giant light fixture which consists of "... 914 champagne-colored aluminum pyramids, each holding a light" (Woodward, p.127).

On opening day, everything in the building was either the biggest or the best of its kind. This ranges from the tonnage of the air conditioning system all the way to the length of the teller

counter (Houston Post, 2/5/61, sec 9, p.7). Probably the two most significant aspects of the building was the length of the free span and the height of the plate glass and aluminum curtain wall. These two aspects of the building still fascinate people today. The building is indeed a landmark to the work of Bunschaft and SOM during the 1960's as well as the "can do" nature that epitomized Houston during the 1970's.



Once the heart of downtown, the area around the bank lobby building has struggled for the past twenty years to remain a functioning and productive area of the city. Only recently, with the proposed superstop and other downtown improvements, has the area slowly become financially viable for businesses to develop.

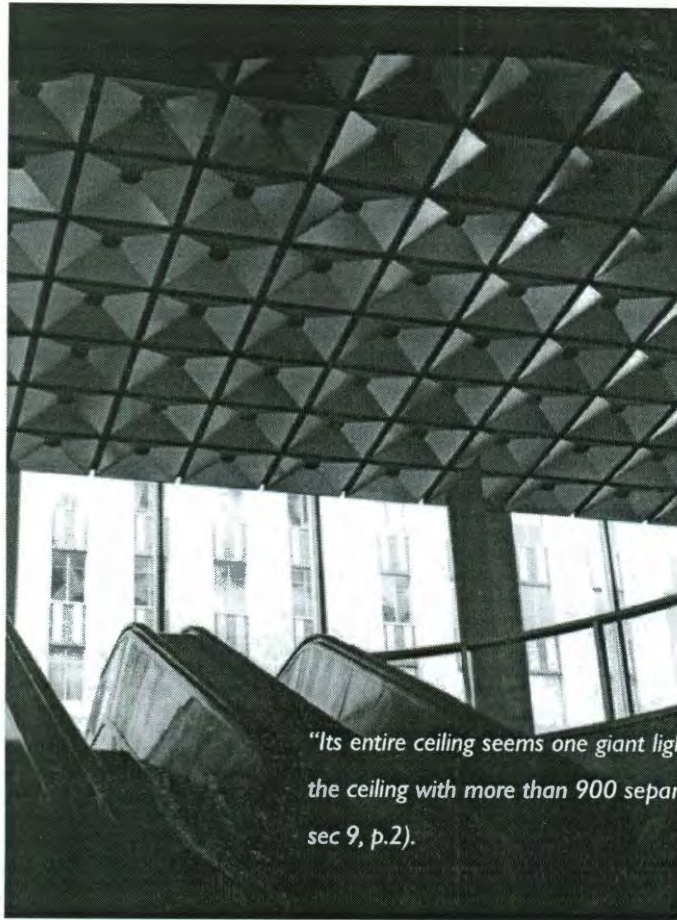


"When built [the bank] had the longest teller counter in the United States" (Woodward, p. 127)

lobby of the First City

National Bank is completely free of columns or other obstructions. The officer's desks are grouped together in various sections of the lobby. In the center of the floor are the escalators which lead down to the vault and the safety deposit area. The ceiling of the lobby is 32' high and holds hundreds lights."

(Houston Post, 2/5/61, Sec 9, p. 7)



"Its entire ceiling seems one giant light fixture, an effect achieved by covering the ceiling with more than 900 separate lighting units" (Houston Post, 2/5/61, sec 9, p.2).

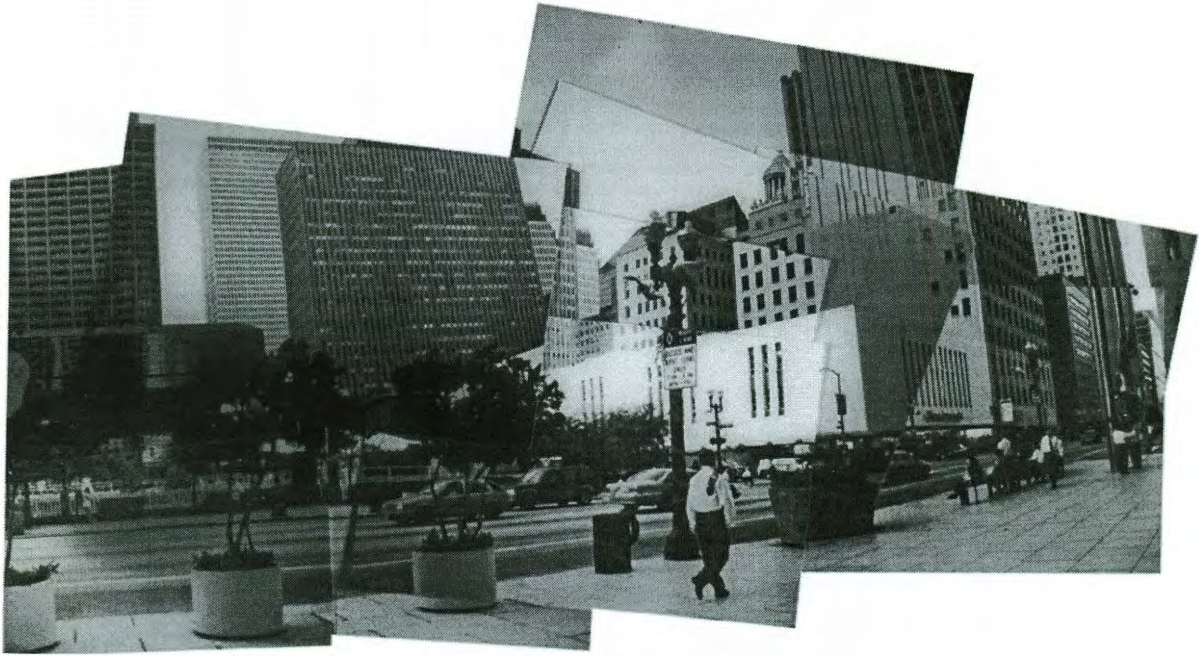


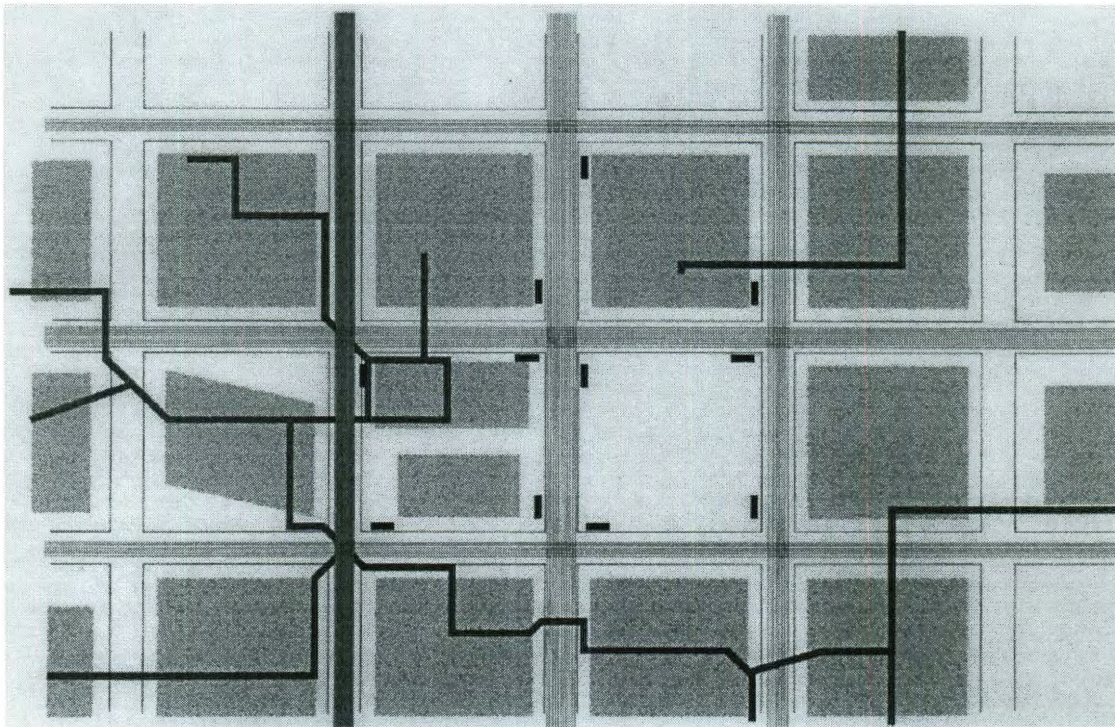
photo collage



photo collage



It is important to remember that because of the bus lines the site is not just the bank lobby or the downtown area but also the entire city. The drawing illustrates the "site" by drawing all of the bus lines that stop at the bank lobby and their extension into the city.



All of the forms of movement in the city are highly striated and separated. This separation is exemplified in the publication of individual maps for each of the forms of movement. This drawing layers all of the striated forms of movement onto one drawing in order to begin to understand relationships that occur between the three.

design solution

The initial area of interest with the project was the role of the program within the city. Typically, all forms of movement through the city of Houston (pedestrian, car, bus, tunnel pedestrian, and bicycle) are completely separated. The uniqueness of this program allows all of the highly striated forms of movement to overlap at a single point potentially creating a density unknown in Houston. Using this as a starting point, the design solution focuses on three major issues.

The first issue is the concept of the void and its inverse within the city. Traditionally, the role of the void in the city is to allow the city to see (understand) itself. Unfortunately, most

“open cities”, like Houston, do not have enough density to allow for the creation of a void. The site for the project is unique in these terms



aerial photo of void

because the density of the downtown area around the bank lobby allows the empty lot across the street to read as a void. Because of the amount of pedestrian traffic around the perimeter of this lot, the city is allowed to

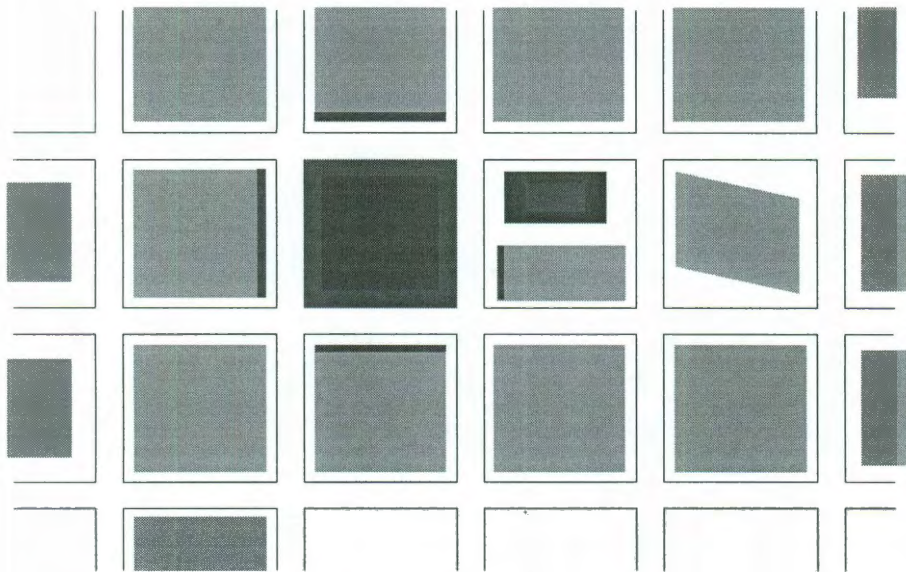


figure ground diagram that maps the relationship between the void and the inverted void

see itself in ways that do not happen elsewhere in Houston. Using this void as a starting point, the design focuses on the creation of an “inverted void”. This “inverted void”, through the manipulation of pedestrian traffic, will be concentrated at the center creating a density of people unknown in Houston. This concentrated point will contain not people of a single ethnic and economic background but instead will contain a true cross section of society including people from both, in Lars Lerup’s words, “the third world” (the downtown surface level pedestrians) and the skyscrapers (the white - collar corporate employees).

ized society by making available that which was previously hidden. Information was no longer the property of a select few in a small dark room but instead it was available to all (Scoffidio lecture).

This utopian view of the curtain wall no longer applies in today's culture. Instead of being about the dematerialization of the wall, the curtain wall today has become one of the strongest political lines (barriers) in the city. The curtain wall is now the symbol of corporate America. The project abolishes the curtain wall as a strict political line at the perimeter of the building and instead attempts to inhabit it. The curtain wall in essence delaminates and becomes the building. The ground plane of the building is seen as an open plane where one continually passes between different layers of the delaminated curtain wall. Within this zone, there are no strict lines between interior and exterior. The project also inhabits the other major elements of the curtain wall including the mullions, the ground plane, and the ceiling plane. The ceiling plane is no longer a consistent plane instead it begins to drop in places defining specific spatial qualities at the ground plane. The areas of dropped ceiling become habitable

spaces within the ceiling structure.

Another aspect of the curtain wall that is explored in the project is the surface quality of glass. Michael Hays, in his article "The Crisis of Humanism, the Dissolution of the Object", explores the surface quality of glass by comparing Mies van der Rohe's curtain wall with Ludwig Hilberseimer's curtain wall. During the early stages of his career, Mies' was obsessed with the manipulation of the surface quality of glass specifically the role of reflections on the surface of the glass. Through the development of reflections, Mies was able to remove the building "... from the atemporal, idealized realm of autonomous form and install it in a specific situation in the real world of experienced time, open to all the chance and uncertainty of life in the metropolis" (Hays, p.189). According to Hays, the elevations of Mies' early work change continuously in relation to the changing context. Georg Grosz's *Friedrichstrasse*, drawn in 1919, exemplifies this ability of glass to absorb the surroundings into its surface. Mies' skyscraper project of 1922 is a perfect example of his obsession with reflections. The faceted glass facades of this project intensify the reflections. Hilberseimer, on the other hand, de-

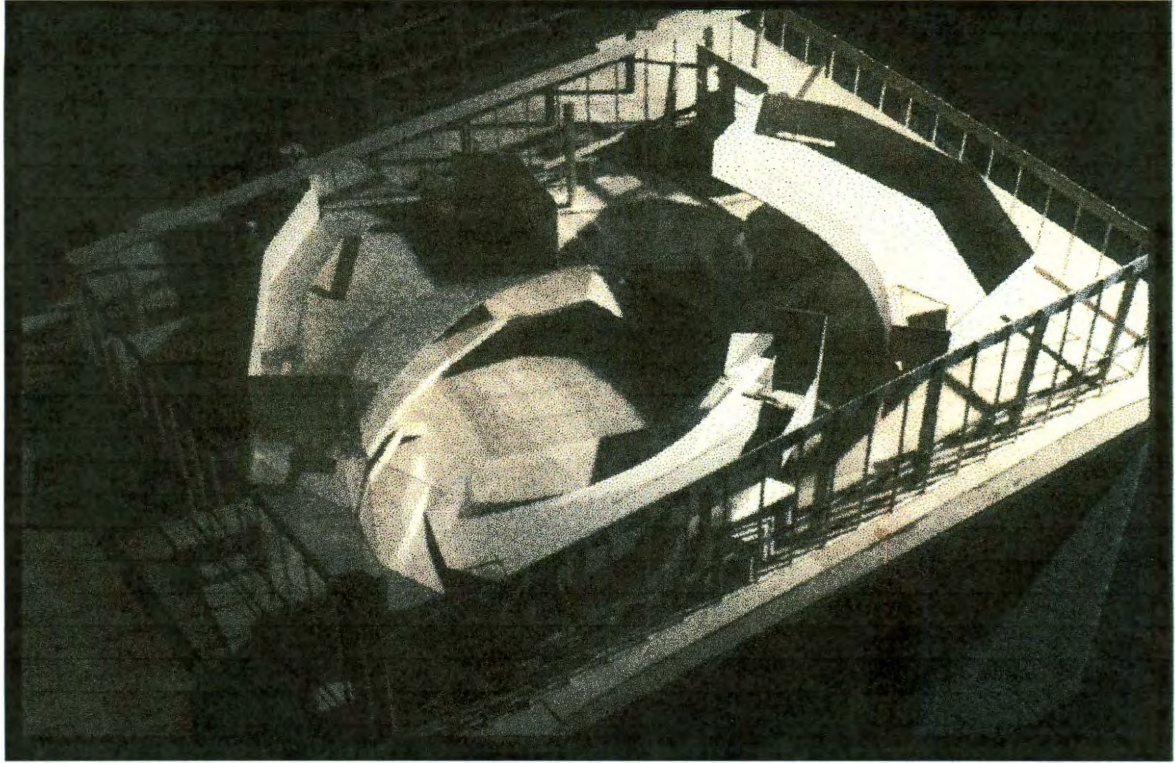
nies the surface of the glass. In his renderings, the surface of the glass disappears and we only see "... the blankness of the page through the empty openings" (Hays, p.197).

The project takes Mies' view of glass as a starting point and attempts to explore the material qualities of glass. No longer is glass seen as neutral divider between exterior and interior, instead it becomes an active ingredient in the visual perception of the building. Through the manipulation of light sources and the layering of faceted planes of glass, the surface quality of the glass is continually being exploited. The glass is continually fluctuating between Mies's high reflectivity and Hilberseimer's blankness. James Carpenter's experiments with glass and the curtain wall were instrumental to this phase of the thesis.



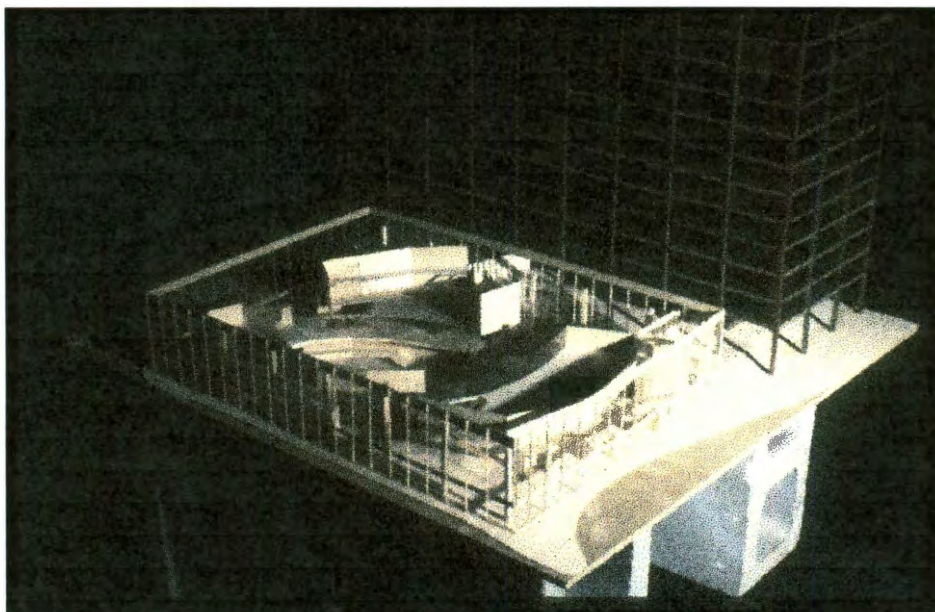
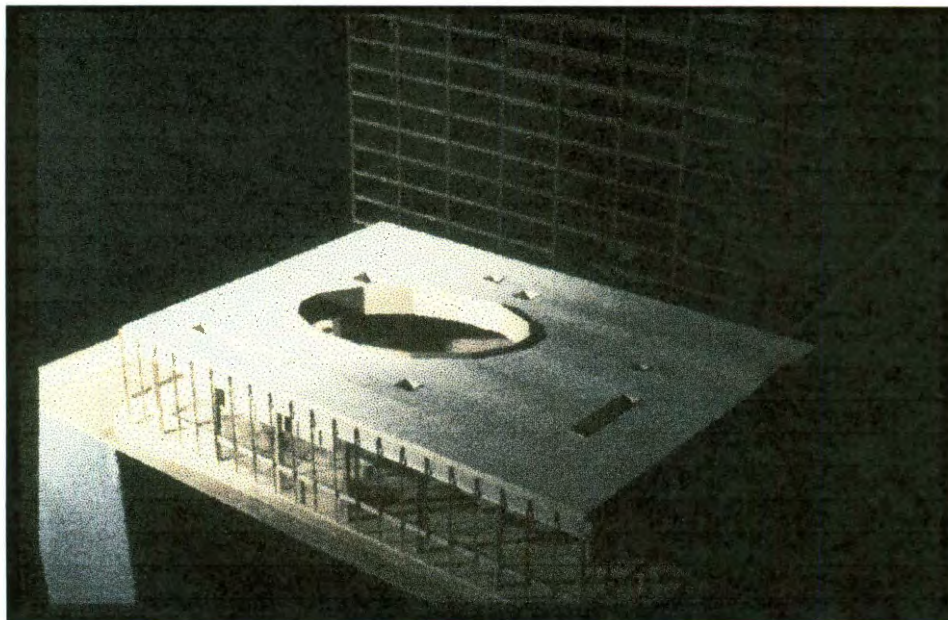
Lastly, the program of a building has historically been seen as a static element that never changes. Most Architects follow the CRS method of programming which uses a process called "Squatting" to define the program at the beginning of the project. This process defines a strict program that is then used by Architects to design a building. The project attempts

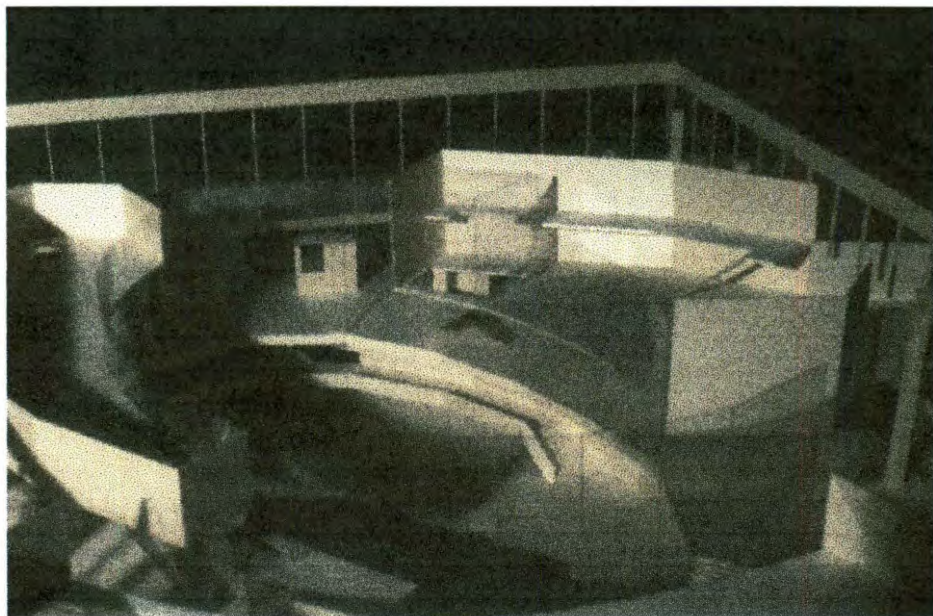
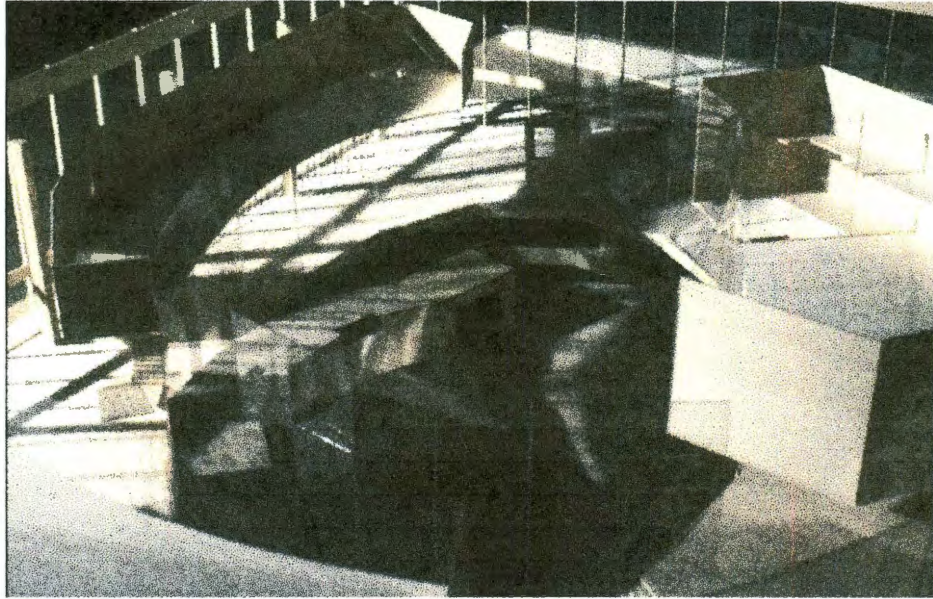
to rediscover the potential of program in architect by viewing it not as a static element but as a fluid level that is continuously reconfiguring itself through time. Much like it does in Extreme Sports, time is seen as an active ingredient in the defining of the program. The new “superstop” is meant to be active twenty-four hours a day with different programs continually turning off and on. With programs continually turning on and off, the building is consistently being reconfigured spatially through the use of program.

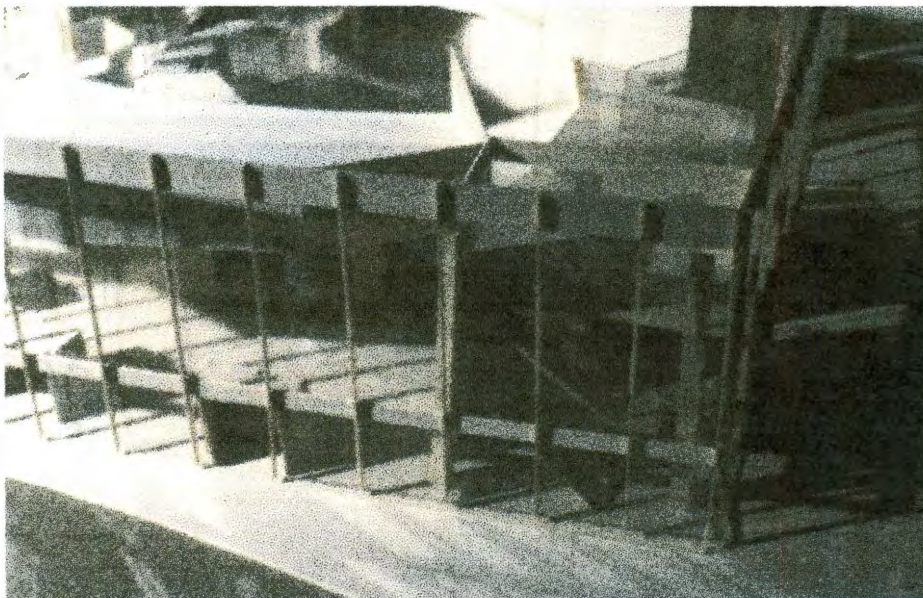


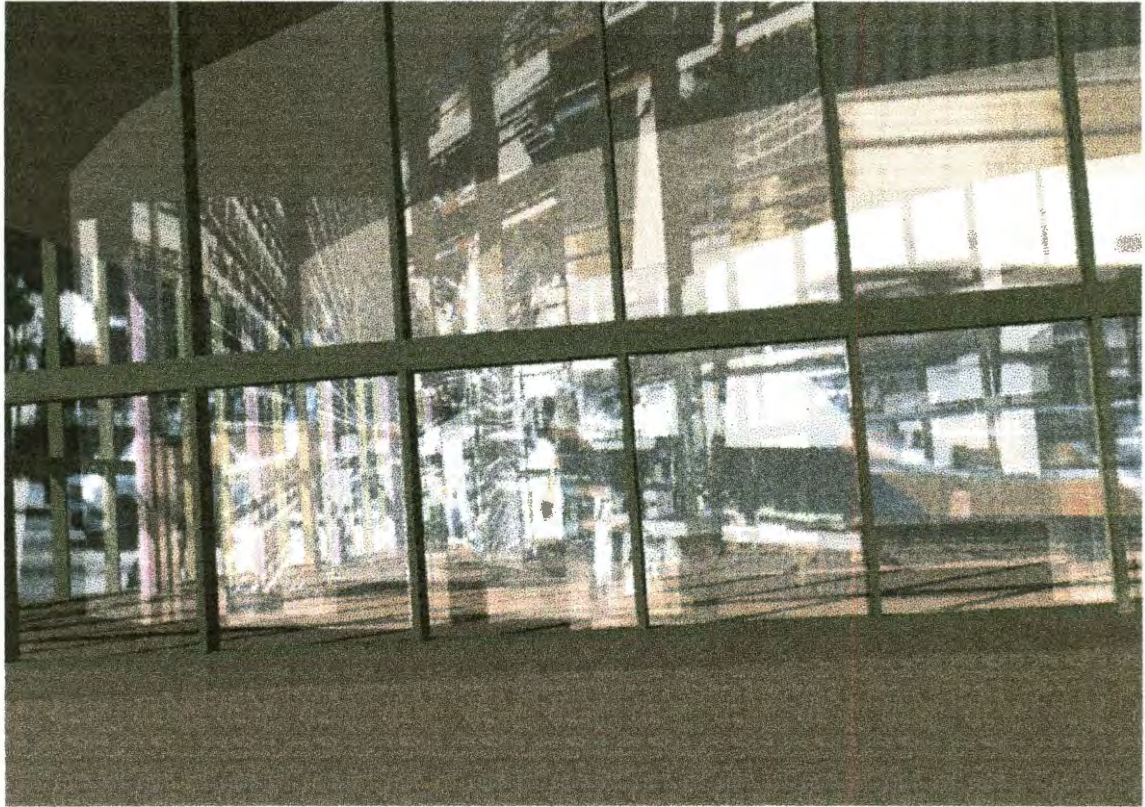
final model

A I





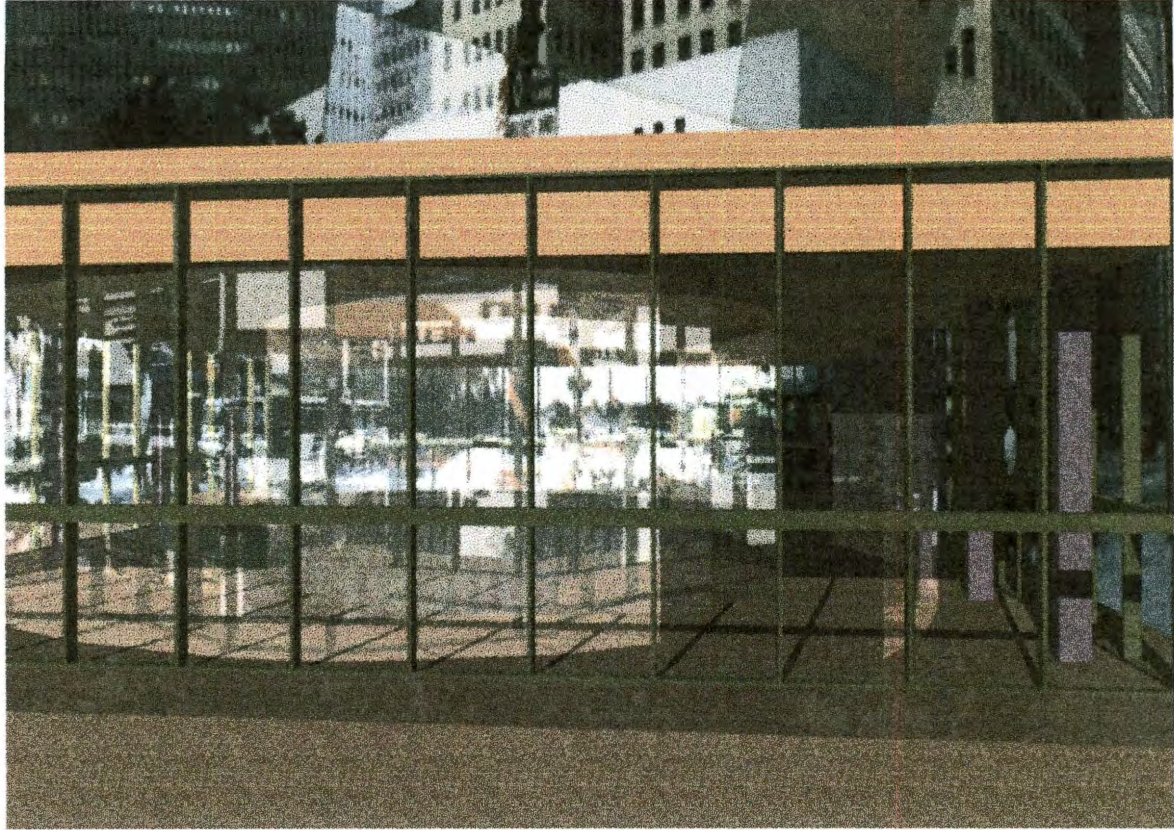




reflection study #1



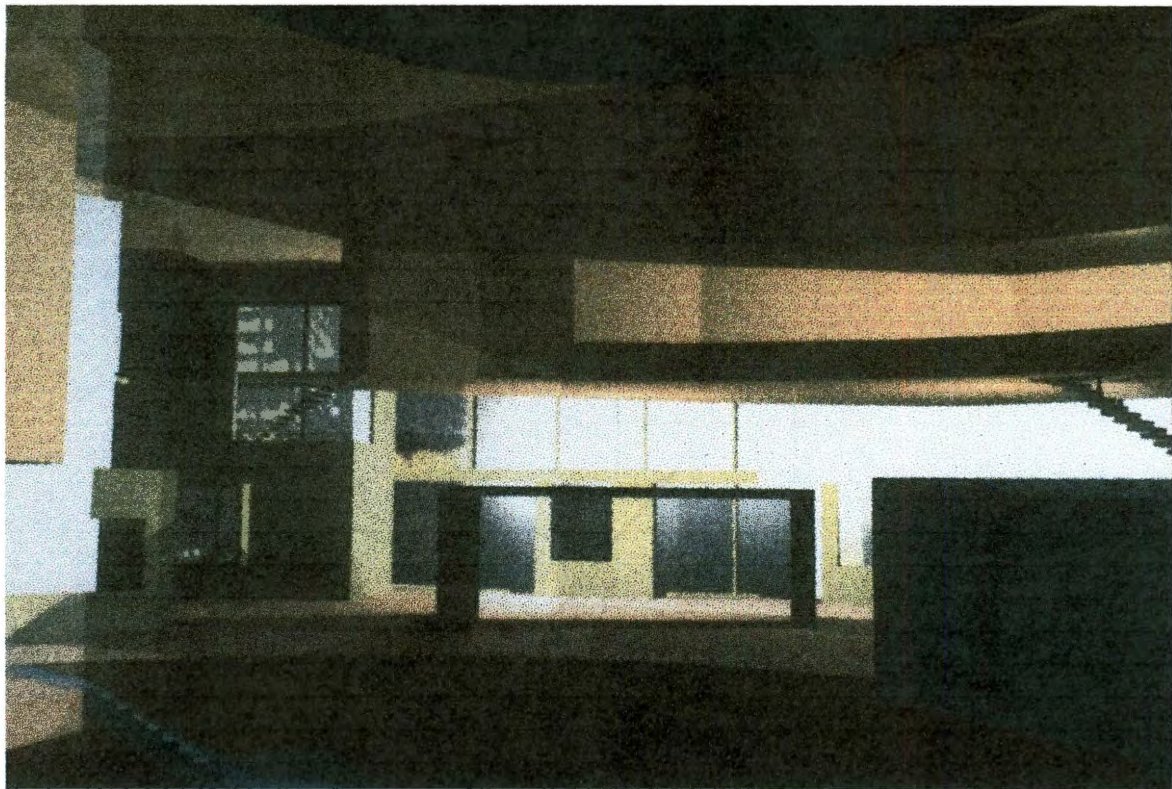
reflection study #2



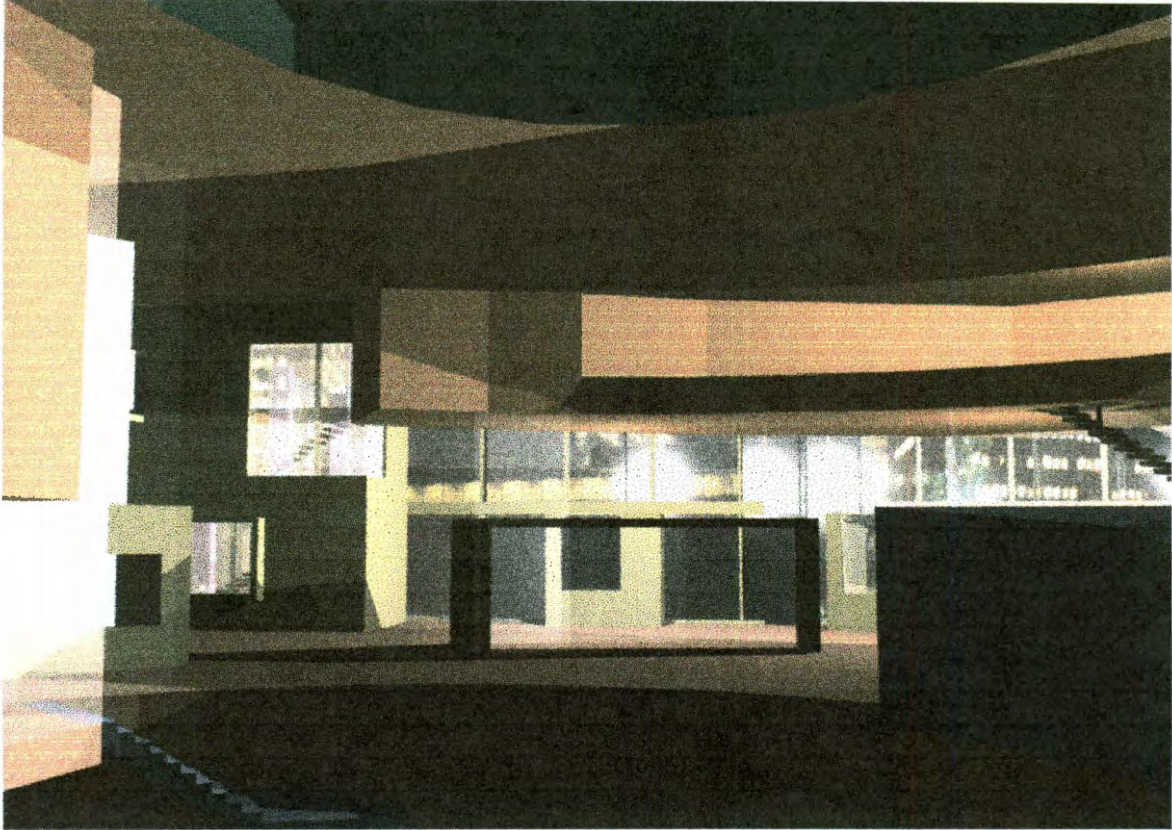
reflection study #3



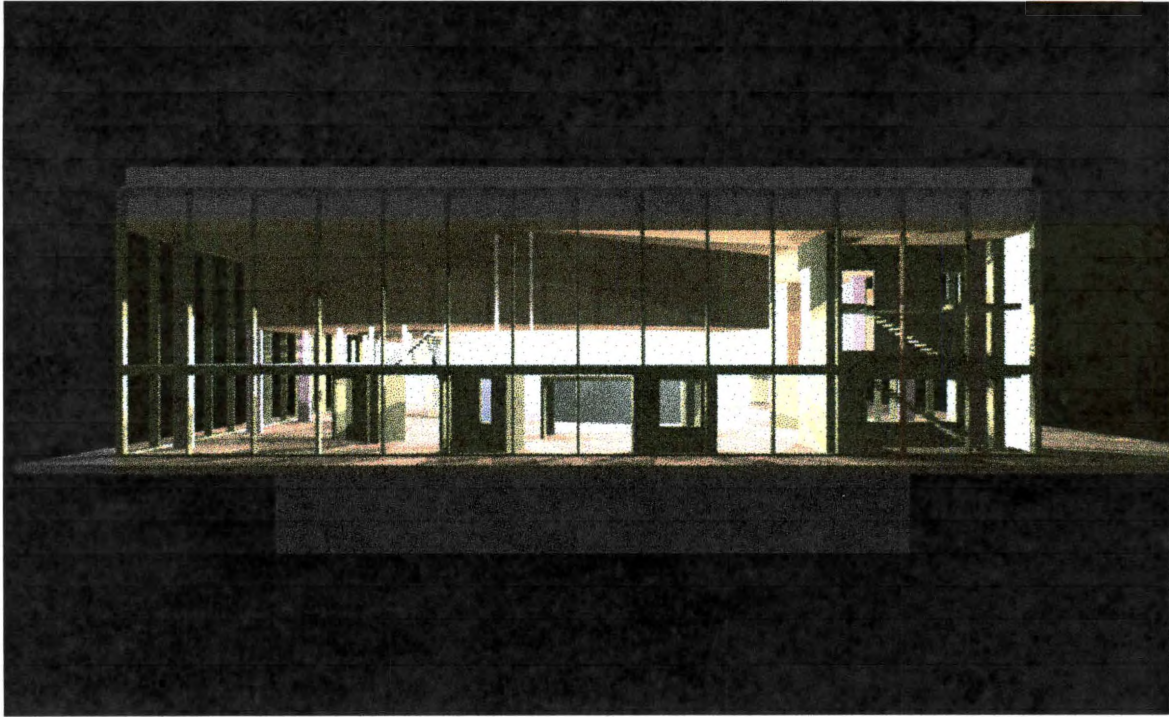
reflection study #4



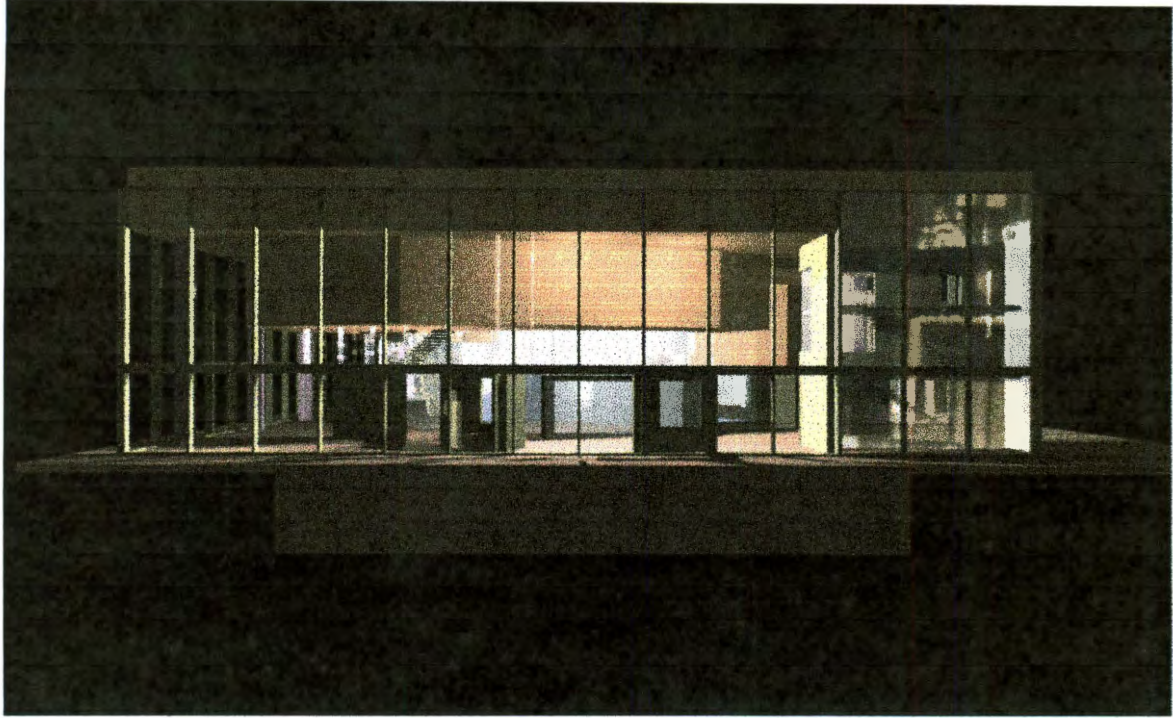
reflection study #5



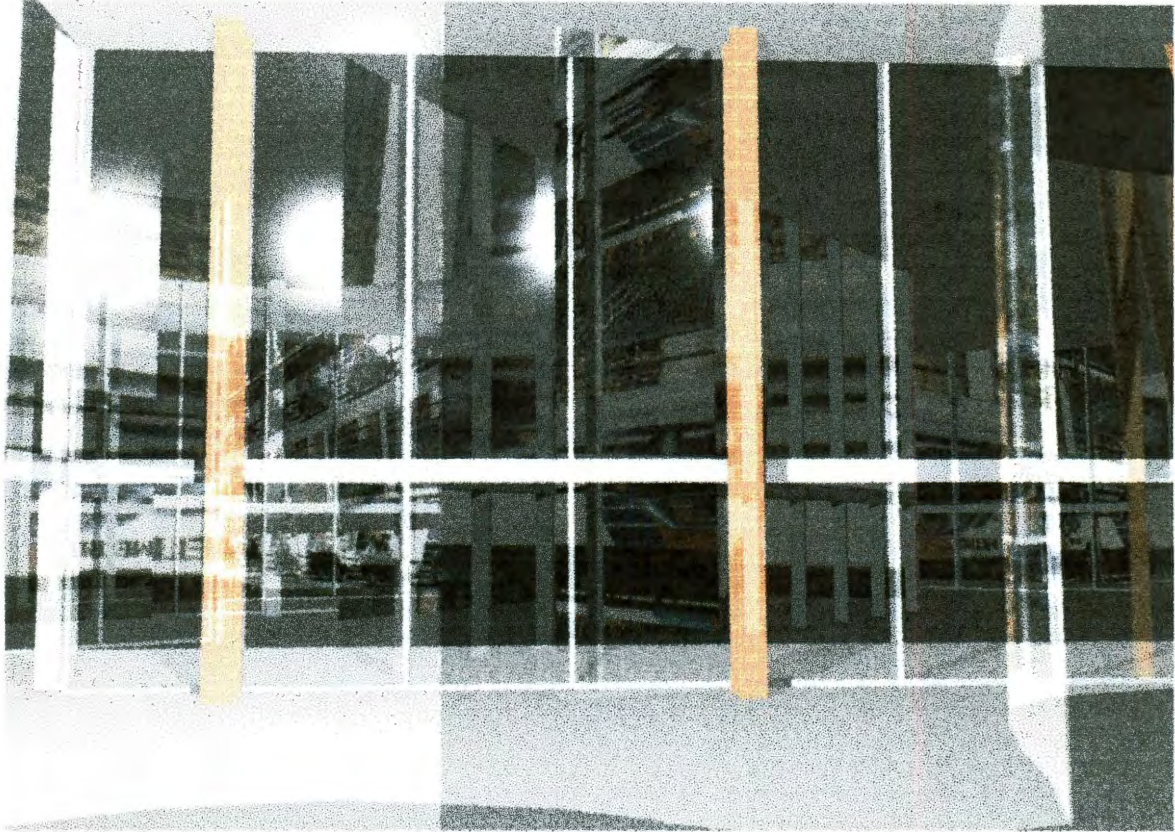
reflection study #6



reflection study #7



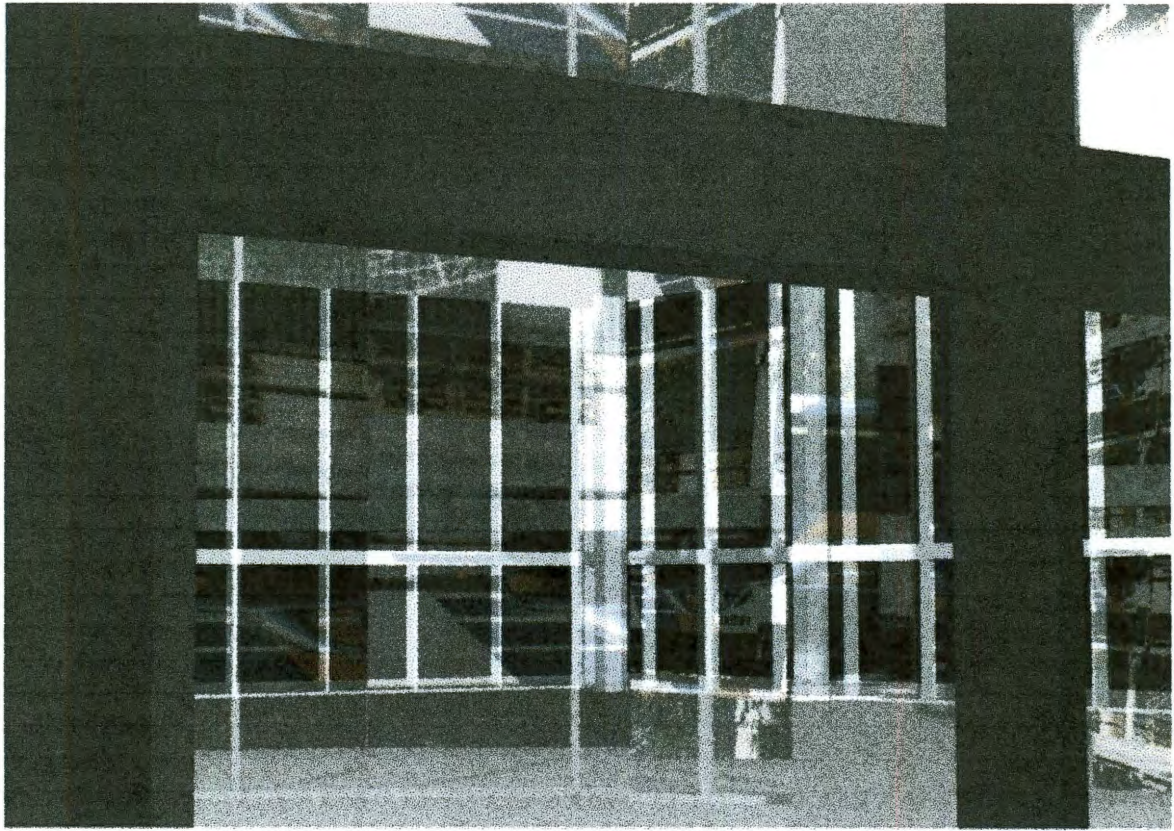
reflection study #8



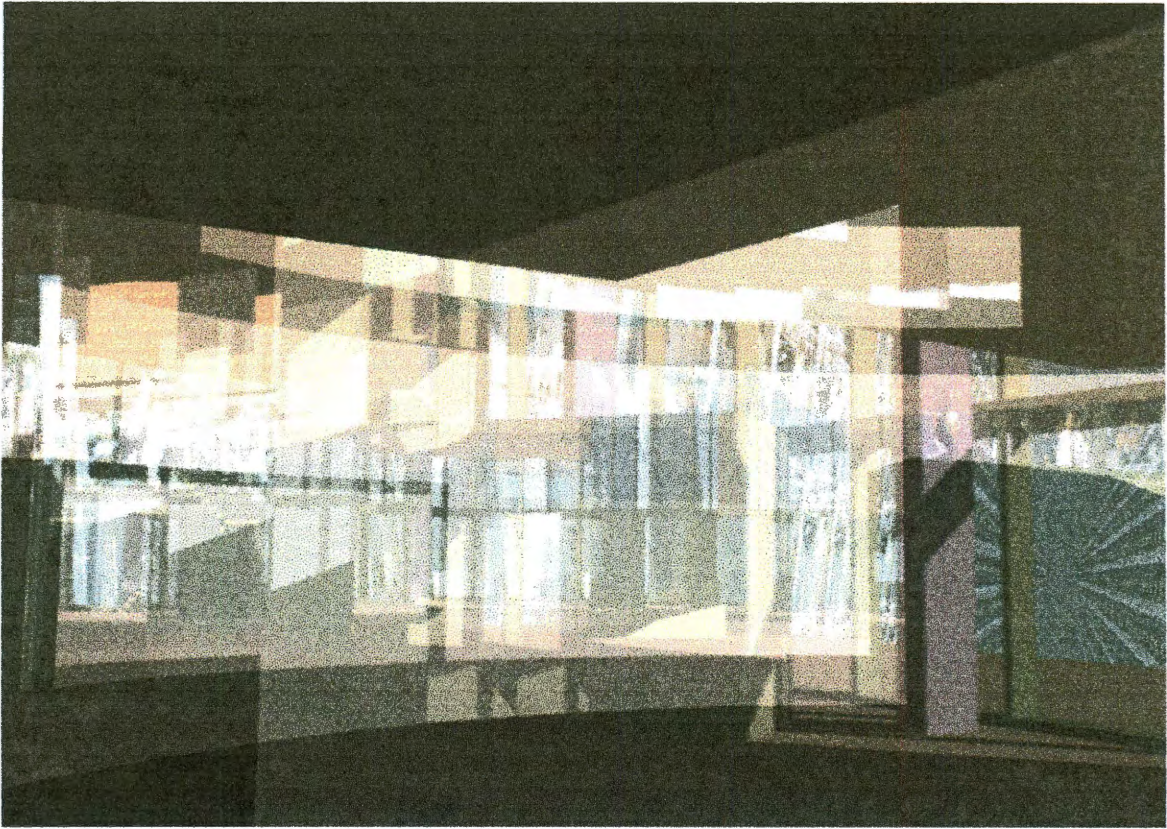
reflection study #9



reflection study #10



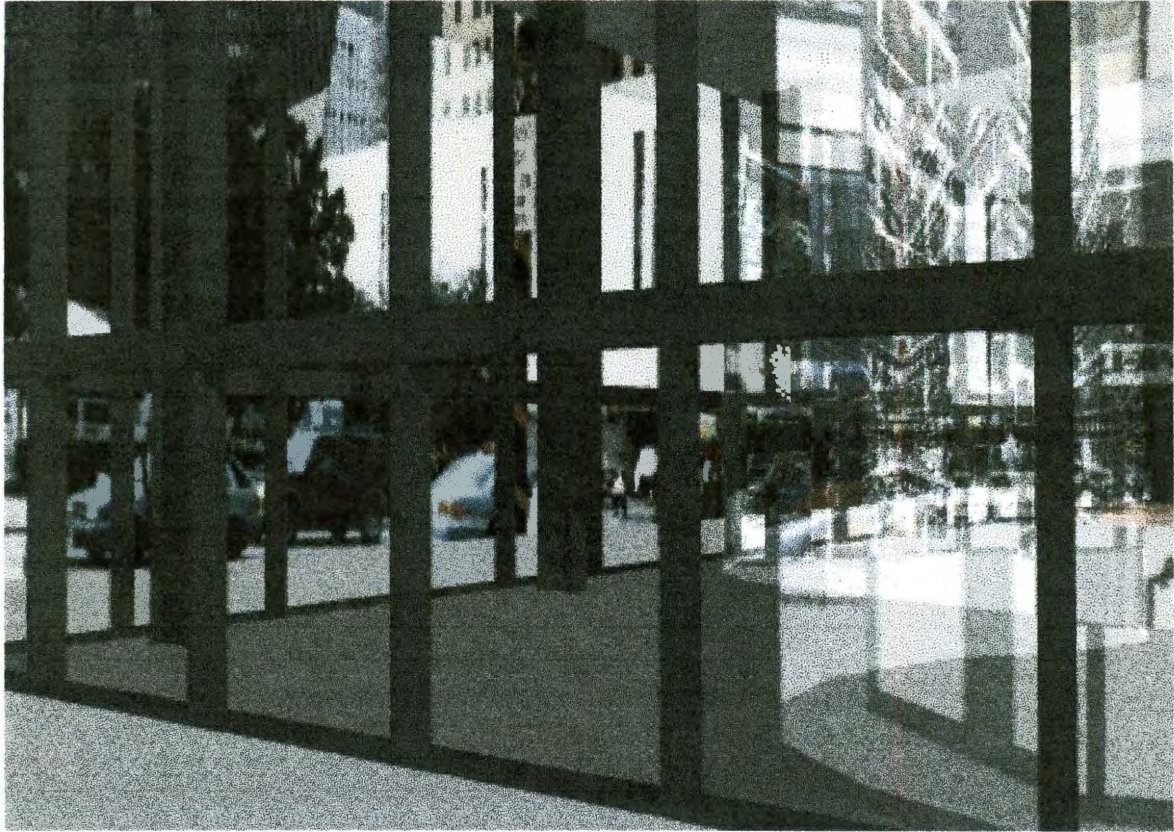
reflection study #11



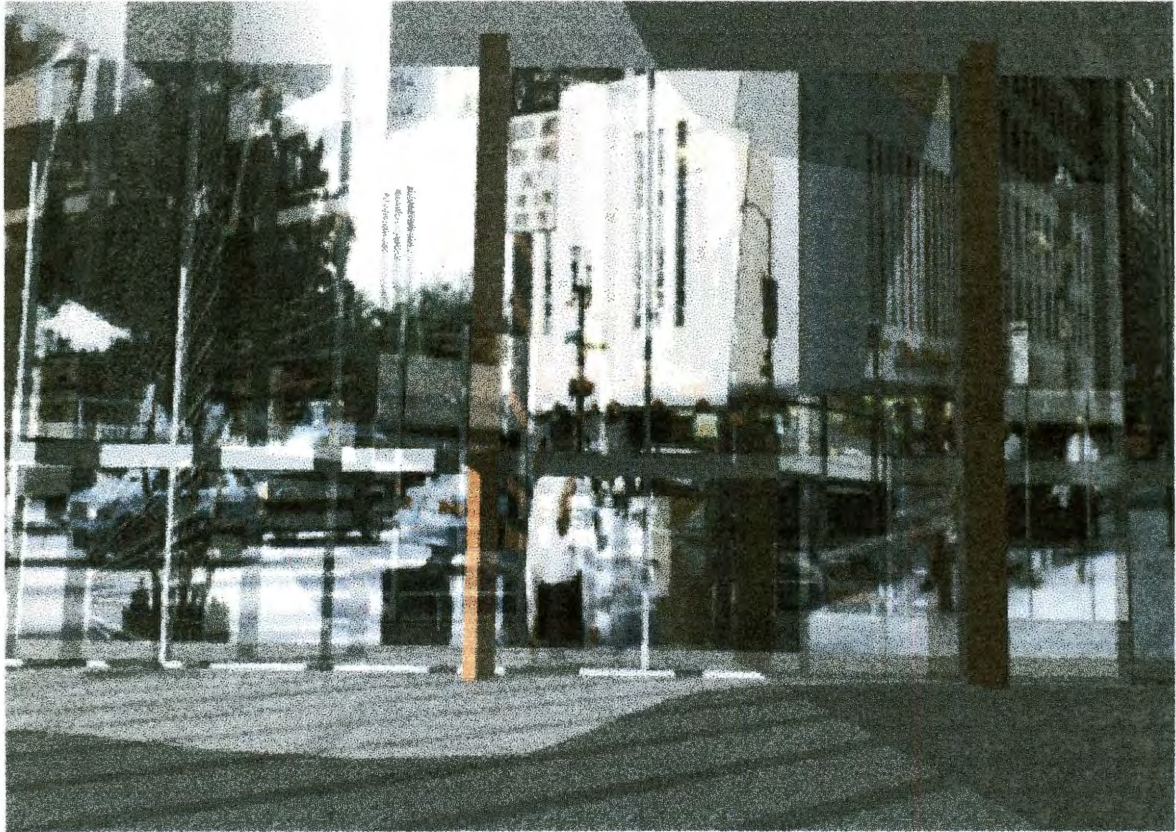
reflection study #12



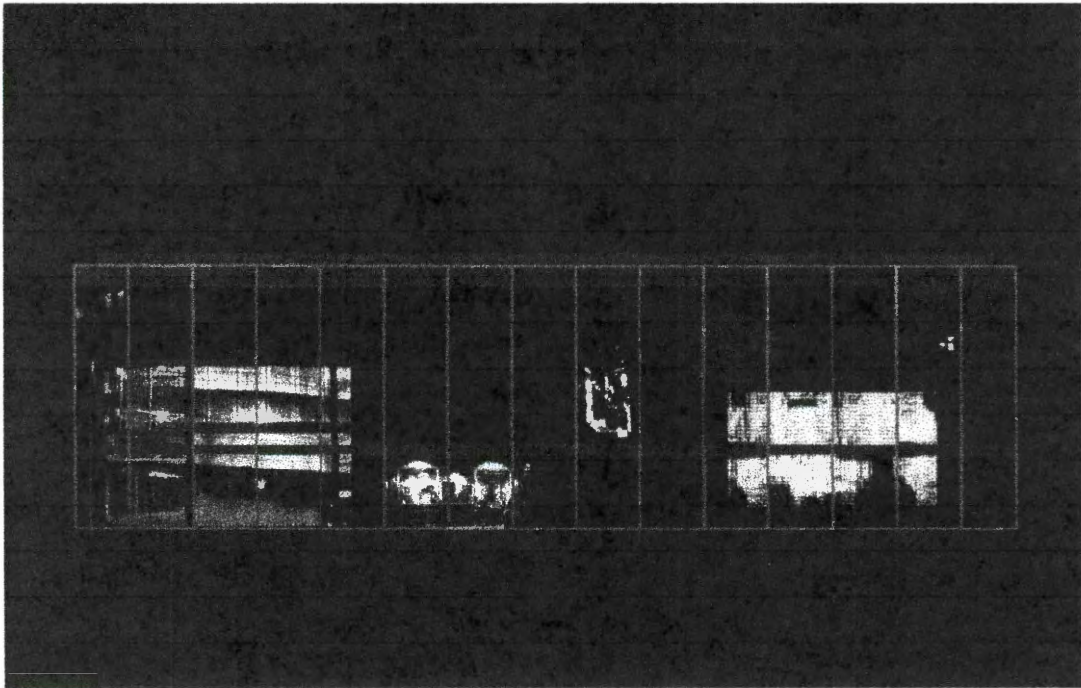
reflection study #13



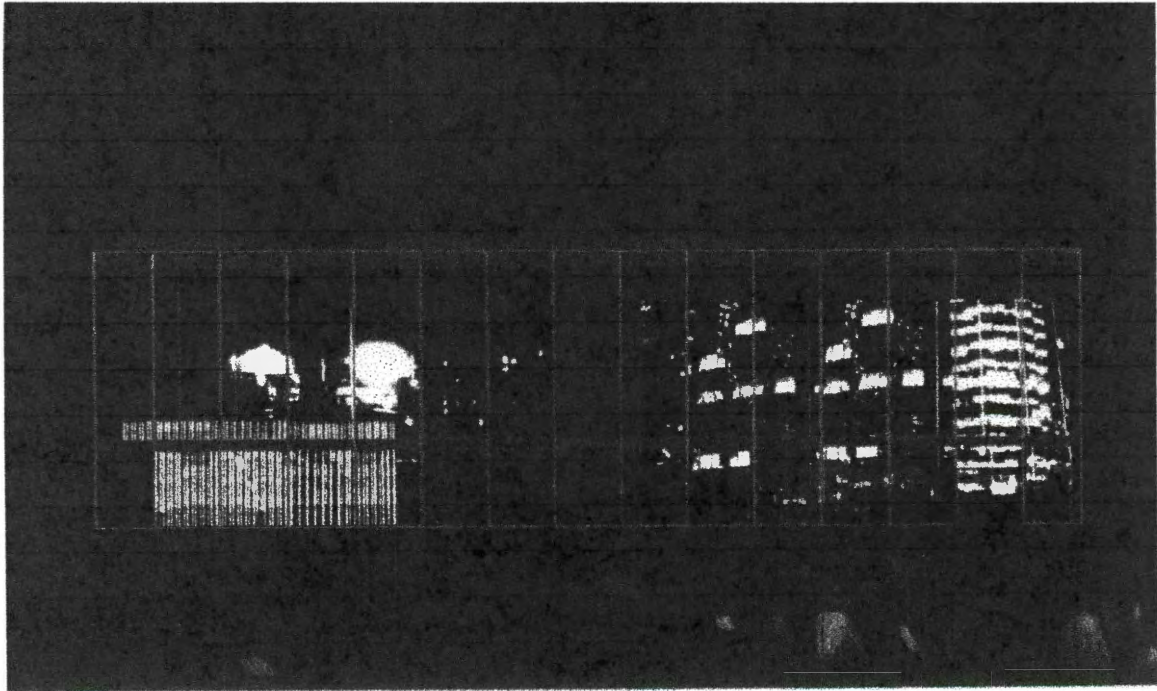
reflection study #14



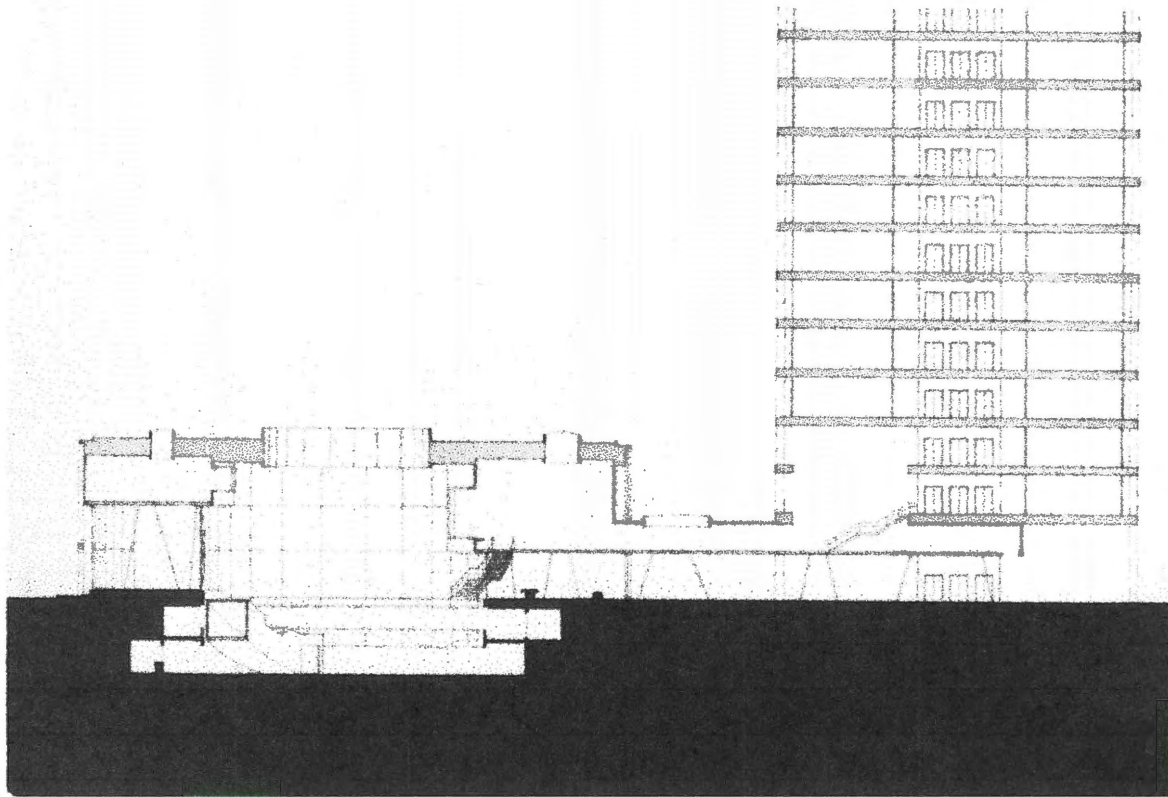
reflection study #15



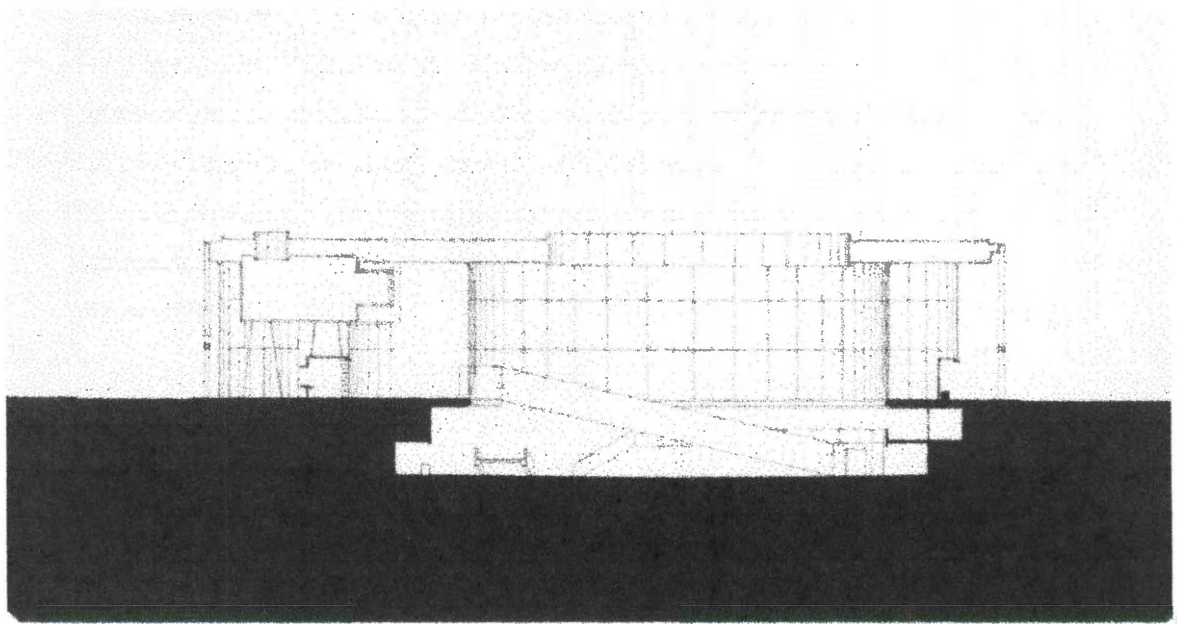
reflection study: front
elevation 8:00 pm



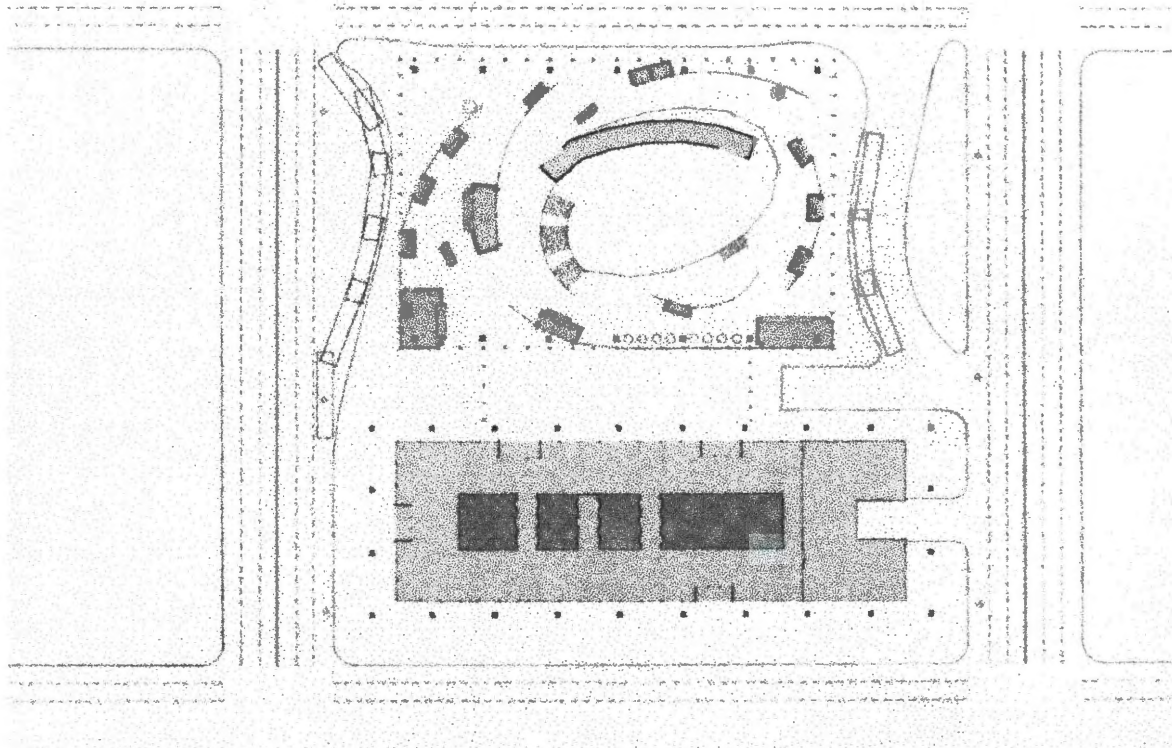
reflection study: front
elevation at 11:00 pm



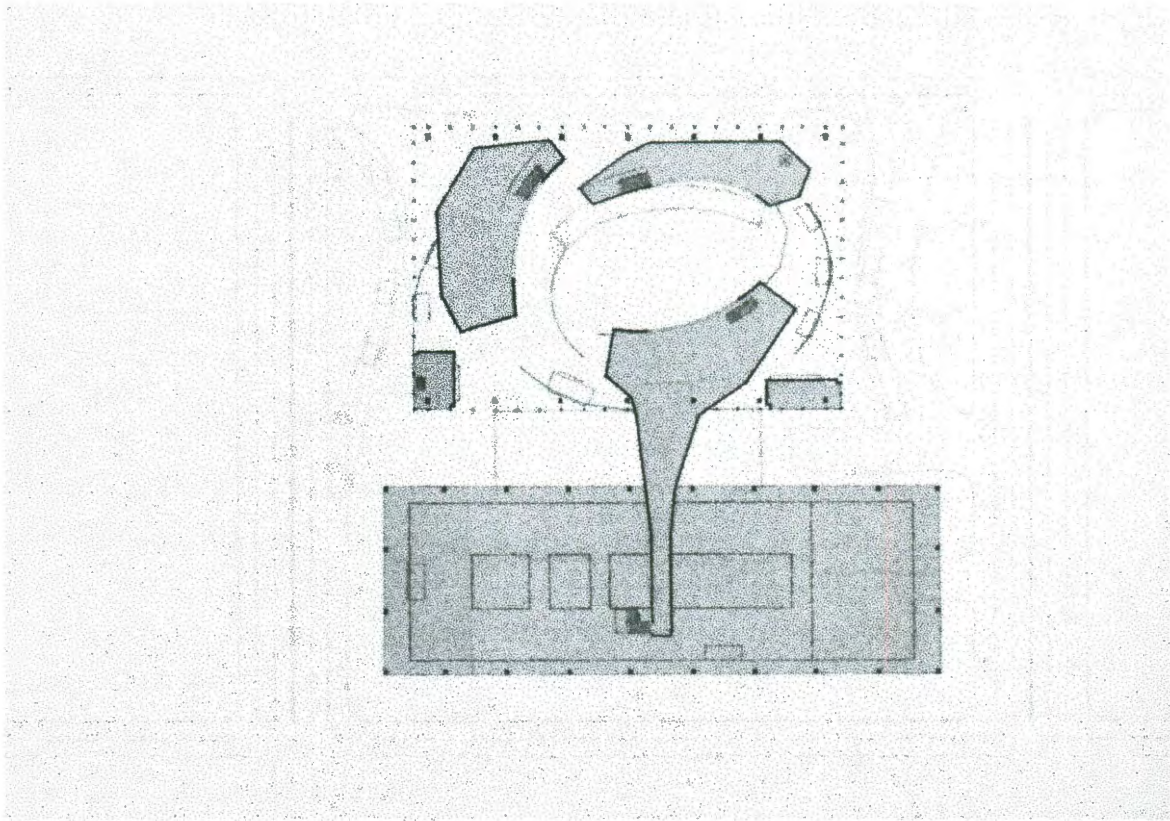
floor plan, level 1 reflection study #15



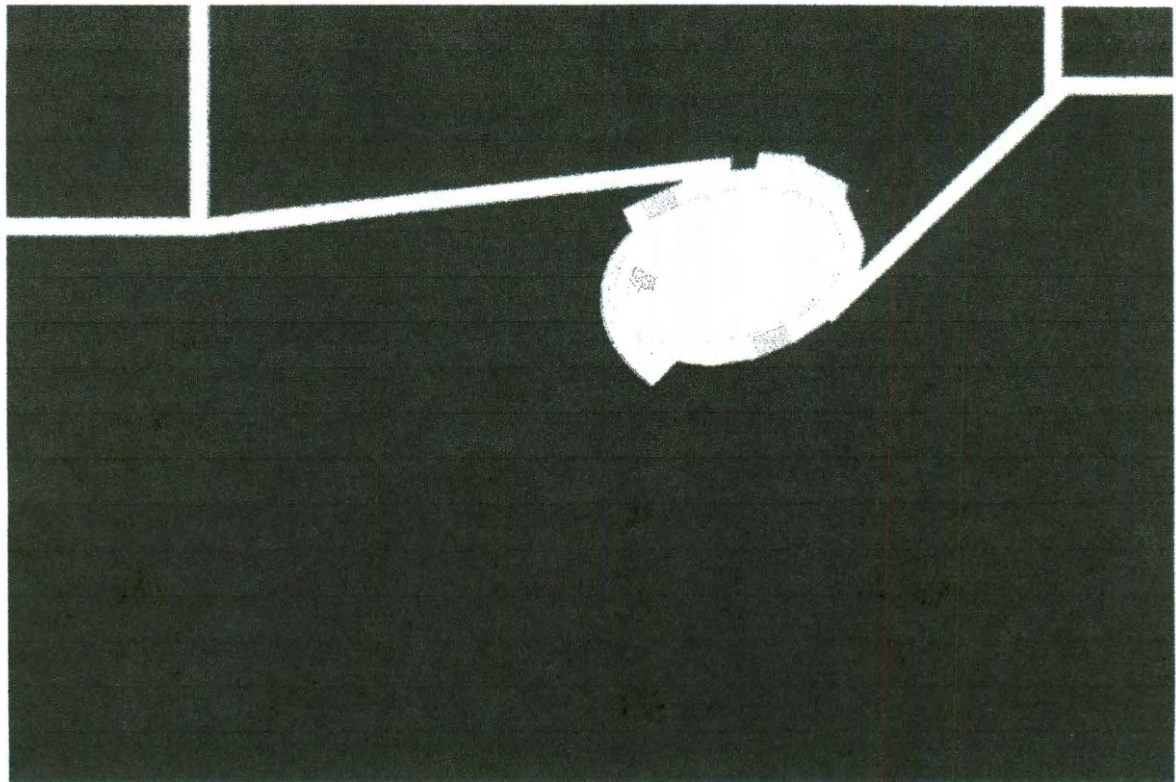
section b



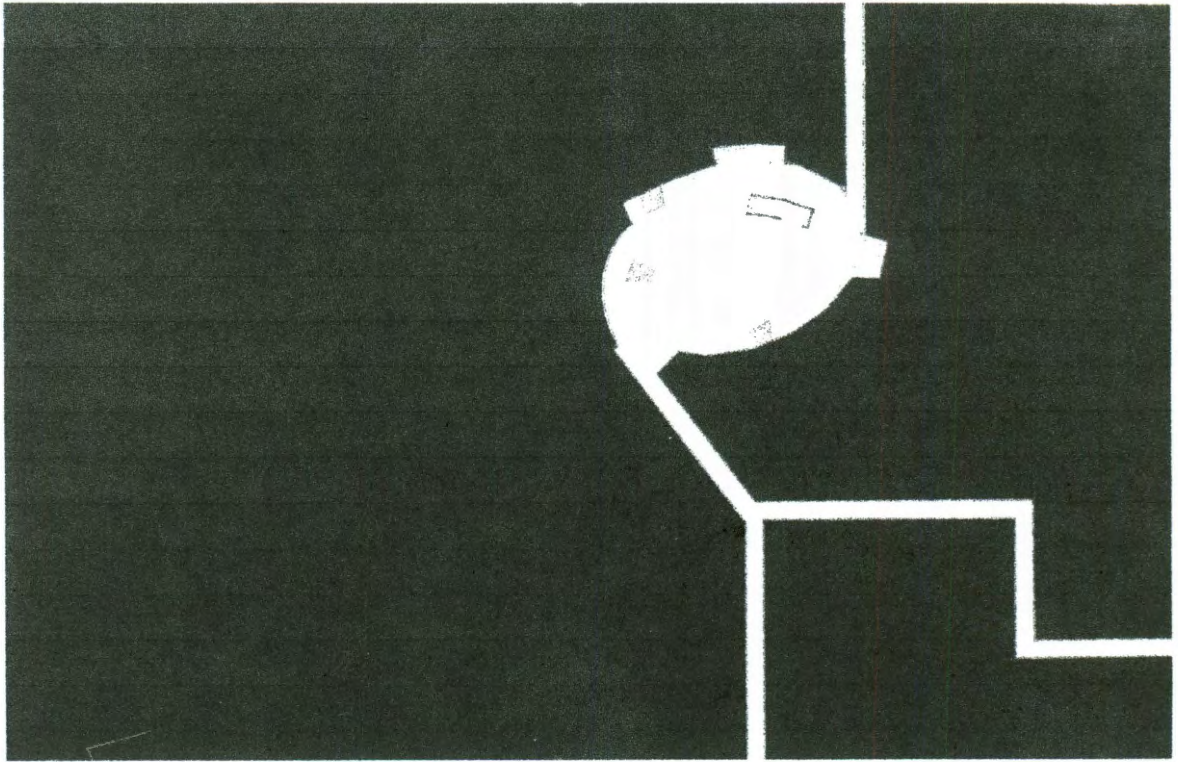
floor plan, level I



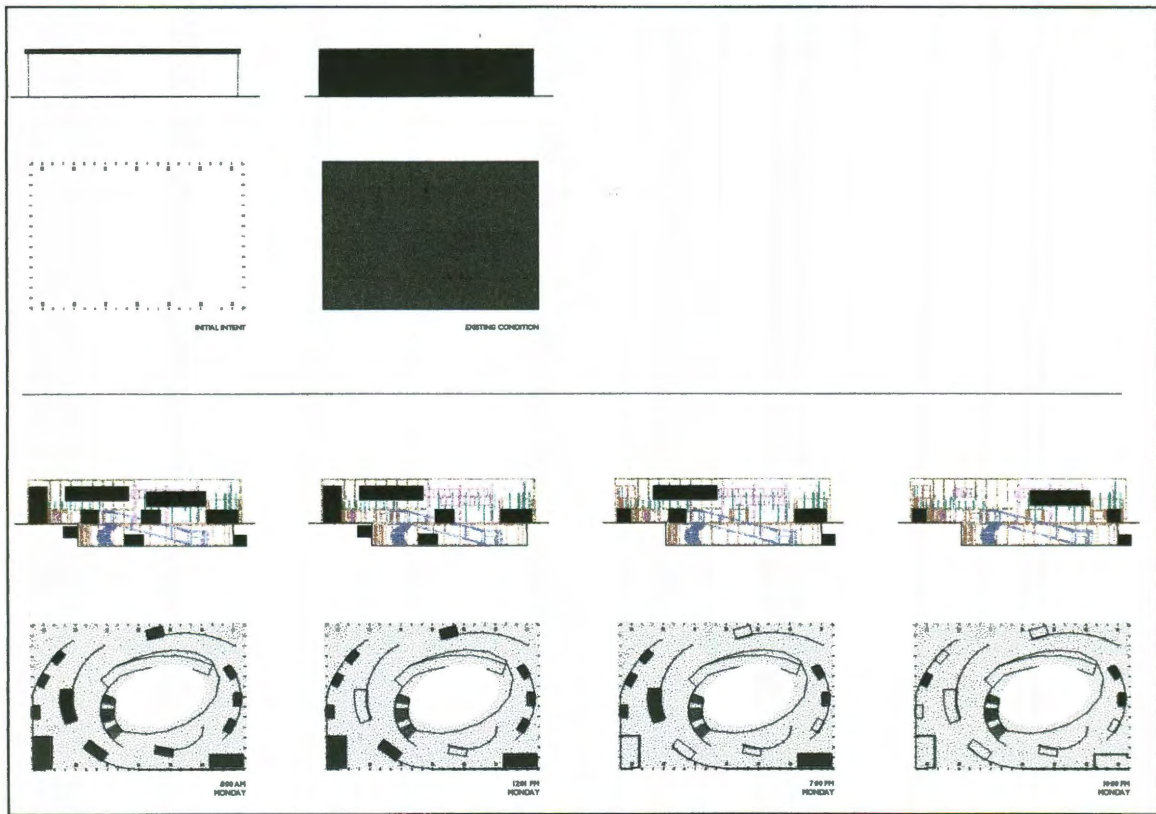
floor plan, level 2



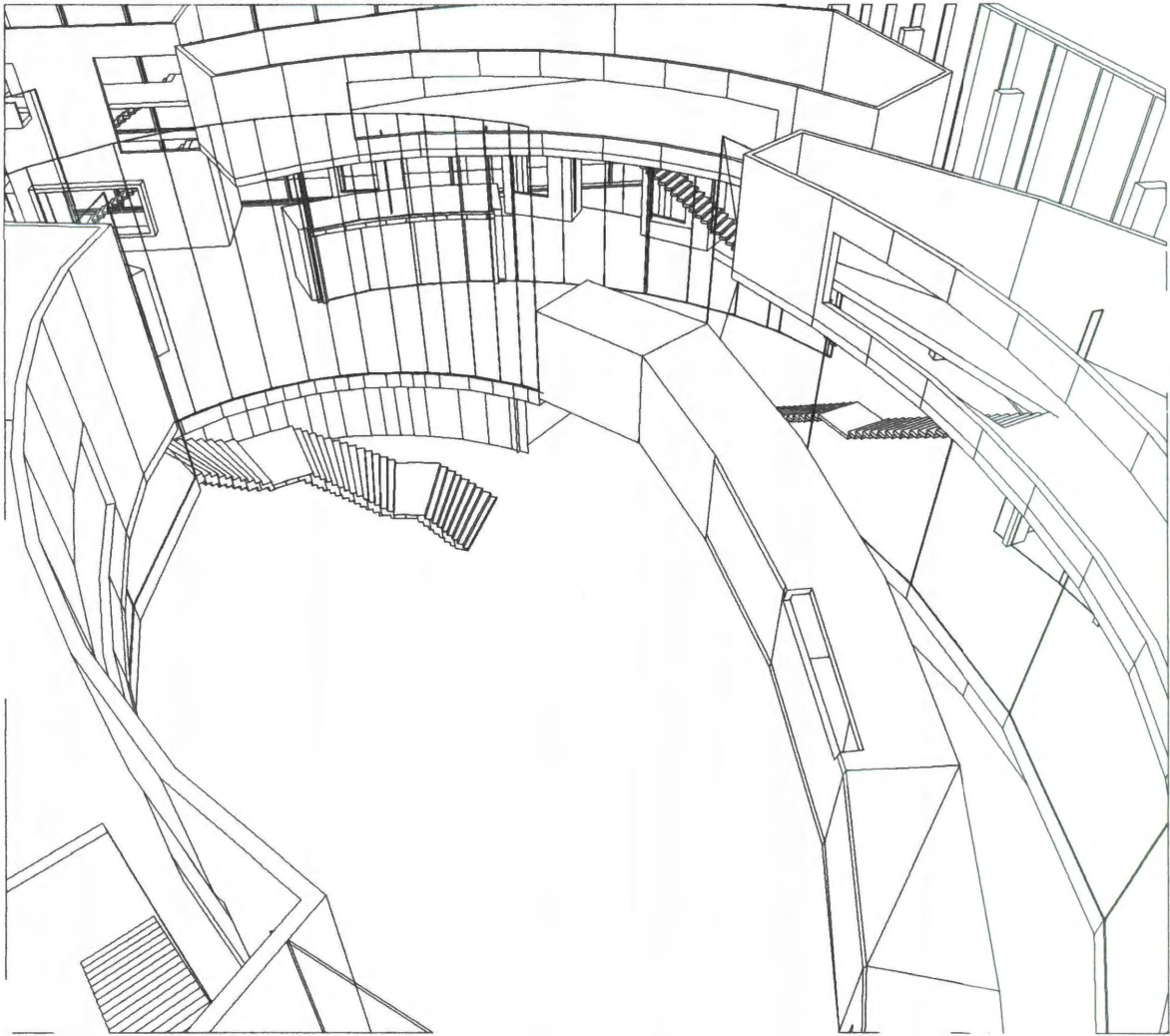
tunnel plan, level -I



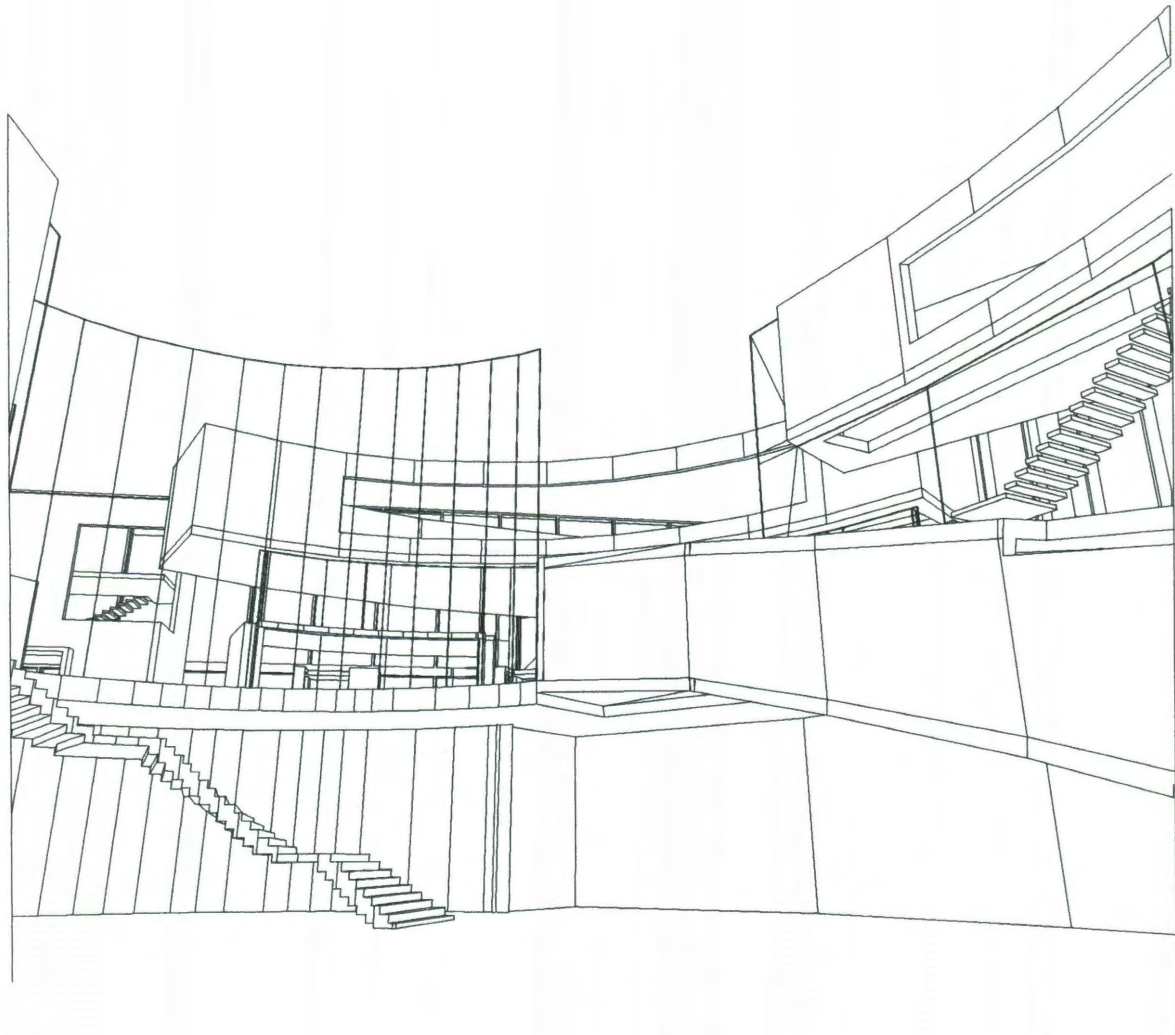
tunnel plan, level -2



drawing diagrams the fluidity of the
program through the time period of
one day



interior perspective into
exterior space



interior perspective
from exterior space

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